TR Series Owner's Handbook

ASTRA

HOLDEN

Owner's Name ....

Address ....

Town ....

State .... Postcode ....

(17 character I.S.O.V.I.N.) Vehicle identification Number

Model Name ....

Reg. No..................... Eng./ No..............................

Odometer Reading ....

Date of Purchase ....

Vehicle Identification Certificate

Selling Dealer's
Stamp & Signature ....

General Motors-Holdens Automotive Ltd. Aust. Co. No. 006 893 232 (herinafter Holden).

Change of name, address or ownership

In the event of a Safety Recall, or for various reasons, Holden may need to contact you as the owner of this car. Also, if less than three years old, this car will qualify for Roadside Service, refer Chapter 9. If you have recently changed your address, or name, or purchased this car secondhand, please help us to help you by taking a few minutes to fill-in and mail the form on the third page of this handbook.

Part No. 92055751
May 1996 (Astra, print 1)

CONTENTS

Dash layout, switches, horn, instruments, wipers and washers, exterior lights, ashtray and lighter, radio, heater and air conditioning, clock, bonnet.	*Dash board* **1**
Keys, door locks, child safety door locks, dead locks, anti-theft.	*Locks* **2**
Seats, seat belts, child restraints, mirrors, windows, park brake, interior lights	*Know your car* **3**
Engine starting, running in, use of auto transmission, use of manual transmission, driving precautions, anti-lock braking.	*Driving* **4**
Exhaust caution, petrol filling, fuel tank capacity, emission control, reducing fuel consumption.	*Fuel* **5**
Accidents, first aid, flat tyre, engine overheating, flat battery, air bag, towing the car.	*Emergencies* **6**
Service manuals, checking: oil, water, auto trans fluid, power steering fluid, brake fluid, washer fluid, battery, fuses, tyre pressure, trolley jack/hoist locations, bulb replacement.	*Weekly checks* **7**
Engine specs, transmission specs, dimensions, identification plates.	*Specifications* **8**
Warranty, HoldenWise, Roadside service, Holden Dealers, Customer Assistance.	*After sales* **9**
Loading information, towing, towing precautions.	*Towing* **10**
Interior cleaning, exterior cleaning, list of maintenance materials.	*Cleaning* **11**
Maintenance schedule, labour times, service coupons.	*Servicing* **12**
	Index

We thank you for choosing Holden and want to assure you of our continuing interest in your motoring pleasure and satisfaction and compliment you on your choice.

This handbook applies to all the current Astra models. Therefore, due to different models and options, you may find reference in this Handbook to some equipment not installed in your own car.

Please note that all information, illustrations and specifications in this Handbook are based on the latest production information available at the time of printing. Holden reserves the right to make changes at any time without notice and without incurring any obligation.

CHANGE OF ADDRESS OR OWNERSHIP

In the event of a Safety Recall, or for various reasons, Holden may need to contact you as the owner of this car.

Also, if less than three years old, this car will qualify for Roadside Service, refer Chapter 9.

If you have recently changed your address, or name, or purchased this car second-hand, please help us to help you by taking a few minutes to fill in and mail this form. The mailing address is shown on the back of this page.

Please tick the appropriate box:

☐ Original Owner ☐ Subsequent Owner

Title: (Mr, Mrs, Miss, Ms, etc.)

First name in full or initials

Surname or Name of Company/Institution/Government Department

Address

Street/box

City/Town

State

Postcode

Car registration number

Holden Number (see page 8-5 of this book)

ISOVIN Number (see page 8-5 of this book)

Place in an envelope and mail to:

The Manager - Warranty Administration
Service Department
General Motors-Holden's Automotive Limited
Box 548D, G.P.O.
Melbourne
Victoria, 3001

CHANGE OF ADDRESS OR OWNERSHIP

In the event of a Safety Recall, or for various reasons, Holden may need to contact you as the owner of this car.

Also, if less than three years old, this car will qualify for Roadside Service, refer Chapter 9.

If you have recently changed your address, or name, or purchased this car second-hand, please help us to help you by taking a few minutes to fill in and mail this form. The mailing address is shown on the back of this page.

Please tick the appropriate box:

☐ Original Owner ☐ Subsequent Owner

Title: (Mr, Mrs, Miss, Ms, etc.)

First name in full or initials

Surname or Name of Company/Institution/Government Department

Address

Street/box

City/Town

State

Postcode

Car registration number

Holden Number (see page 8-5 of this book)

ISOVIN Number (see page 8-5 of this book)

Place in an envelope and mail to:

The Manager - Warranty Administration
Service Department
General Motors-Holden's Automotive Limited
Box 548D, G.P.O.
Melbourne
Victoria, 3001

CHANGE OF ADDRESS OR OWNERSHIP

In the event of a Safety Recall, or for various reasons, Holden may need to contact you as the owner of this car.

Also, if less than three years old, this car will qualify for Roadside Service, refer Chapter 9.

If you have recently changed your address, or name, or purchased this car second-hand, please help us to help you by taking a few minutes to fill in and mail this form. The mailing address is shown on the back of this page.

Please tick the appropriate box:

☐ Original Owner ☐ Subsequent Owner

Title: (Mr, Mrs, Miss, Ms, etc.)

First name in full or initials

Surname or Name of Company/Institution/Government Department

Address

Street/box

City/Town

State

Postcode

Car registration number

Holden Number (see page 8-5 of this book)

ISOVIN Number (see page 8-5 of this book)

Place in an envelope and mail to:

The Manager - Warranty Administration
Service Department
General Motors-Holden's Automotive Limited
Box 548D, G.P.O.
Melbourne
Victoria, 3001

CHAPTER 1

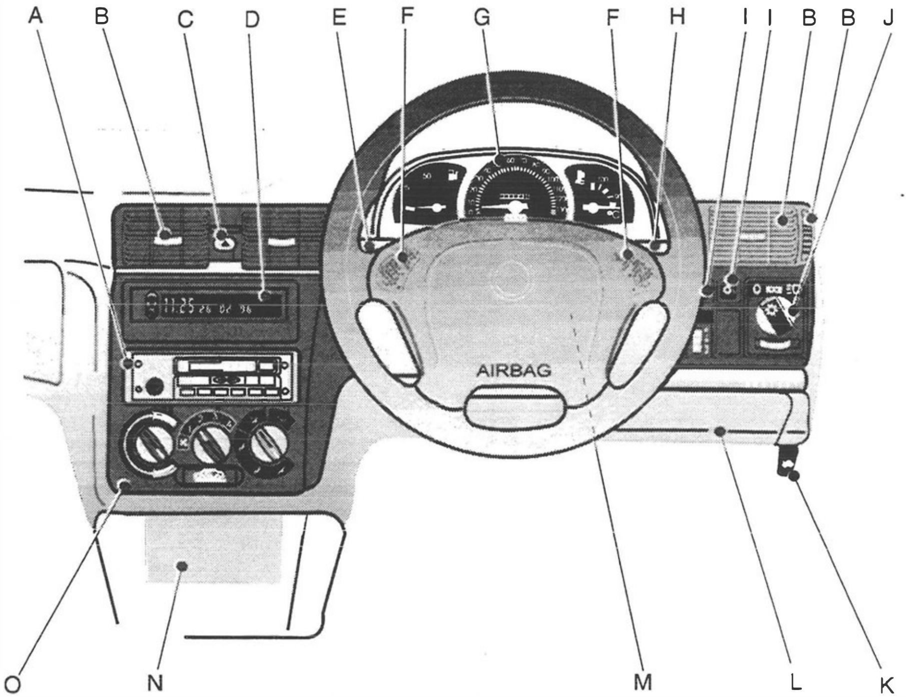
Dash board

The following page illustrates the dash board, identifying the gauges, warning lights, controls and switches. Page reference numbers are listed next to each item.

Page

1-2 Dash layout
1-3 Ignition switch
1-3 Horn
1-4 Gauges
1-6 Warning/reminder lights
1-8 Wipers and washers
1-9 Exterior lights
1-11 Radio
1-11 Ashtray and lighter
1-11 Glovebox
1-12 Heater and air conditioner
1-18 Info display
1-19 Bonnet release

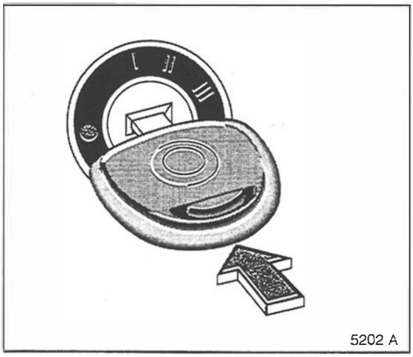
LAYOUT



Page

A	Radio	1-11
B	Vents	1-12
C	Hazard warning switch	1-10
D	Info display (time, temperature, date)	1-17
E	Lever for turn signals and high low beam	1-9
F	Horn	1-3
G	Gauges	1-4
H	Lever for front and rear wipers and washers	1-8
I	Fog light switches	1-10
J	Headlights switch	1-9
K	Bonnet release lever	1-18
L	Fuse box cover	Chapter 7
M	Ignition switch	1-3
N	Ashtray and lighter	1-11
O	Heater, air conditioner controls	1-13

IGNITION AND HORN



● *LOCK:* Ignition off. Steering locked, when key is removed.

I *OFF:* Steering unlocked, ignition off.

II *ON:* Ignition on.

III *START:* Start the engine.

To release steering column lock:

To release the lock, move the steering wheel slightly and turn the key to position I.

To lock steering column:

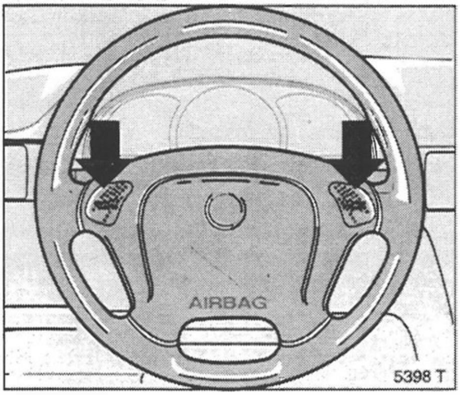
Withdraw the key in position ●. Rotate steering wheel until the lock is heard to engage.

CAUTION:

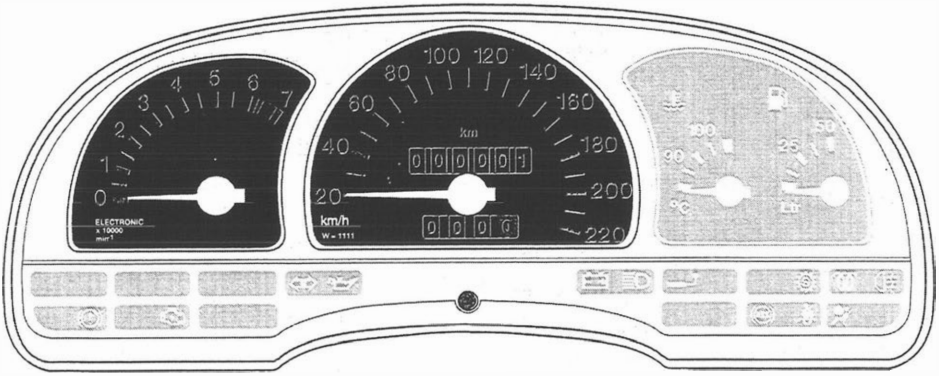
Do not turn the engine off while the car is moving. Power assisted equipment (such as brakes or steering) which are operated by the engine will be ineffective. Never remove the key while the car is moving, as this will lock the steering wheel.

Horn

The horn is activated by pressing the 📯 symbol, on either side of the steering wheel.



GAUGES


0
1
2
3
4
5
6
7
ELECTRONIC
x 10000
min⁻¹
20
40
60
80
100
120
140
160
180
200
220
km
0 0 0 0 0 1
km/h
W - 1111
0 0 0 0
90
130
°C
25
50

5403 T

Speedometer

The speedometer indicates speed in kilometres per hour.

The odometer (in the top half of the speedometer) records kilometres travelled since the car was built.

The tripmeter (in the lower half of the speedometer) records kilometres travelled on a particular trip. To reset the tripmeter to zero, push the tripmeter reset knob, located beneath the speedometer.

Tachometer (if fitted)

The tachometer indicates the engine speed in revolutions per minute (r.p.m.) times 1,000.

Sustained operation in the warning zone will cause serious engine damage. If possible, drive in each gear in the lower engine speed range (between approx. 2,000 and 3,000 r.p.m.) and maintain an even car speed.

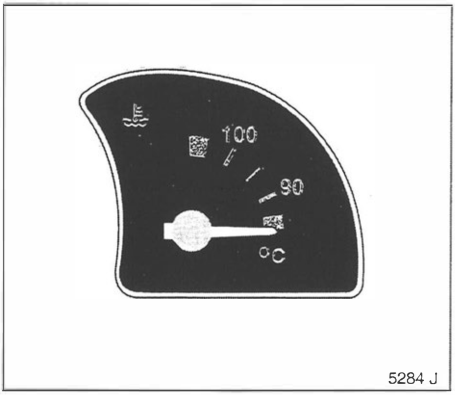
GAUGES

Engine temperature gauge

NEEDLE IN BLUE ZONE = Engine has not reached operating temperature.

NEEDLE IN RED ZONE = Temperature too high. If in the red zone for more than 30 seconds, you should stop the car as soon as it is safe to do so. Refer Chapter 6 for further information.

NEEDLE BETWEEN THE COLOURED ZONES = Normal operating temperature.



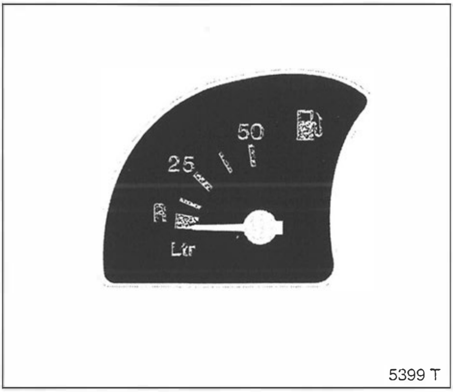
Fuel gauge

The fuel tank has a capacity of 52 litres.

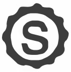
Pointer in the red zone = Fill up!

Never let tank become empty.

Refer to chapter 5 for further information about refuelling.



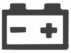
WARNING LIGHTS



Sporty drive (automatic transmission only)

Lights up when "sporty drive" is selected. Transmission then shifts at higher engine speeds, refer chapter 4.

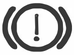
If the warning light flashes, the automatic selection of gears is not working. Stop the car, switch the engine off and restart. If the light continues to flash, manually change gears using the T-bar and consult a Holden dealer.



Battery

Lights up when ignition is switched on. Goes out when the engine is started and engine speed is increased above idle speed.

If it lights up during driving then the battery is not being charged (engine cooling may also be affected). You should see a Holden Dealer as soon as possible.

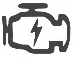


Brakes

Lights up when ignition is switched on if park brake is applied and/or, the brake fluid level is too low.

To check that the bulb is working, ensure that the symbol lights up when the park brake is applied and the ignition is ON.

If it lights during driving and the park brake is *not* applied you should stop the car as soon as possible and consult a Holden Dealer.



Check engine

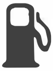
Your car is fitted with an Electronic Engine Management System. The check engine symbol indicates when system service is required.

The symbol lights when the ignition is switched ON and goes out shortly after the engine starts to run.

When driving, the symbol may light up briefly and then go out again. This is of no significance. However, if it often or continuously lights up then service to the Engine Management System is required.

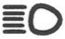
Although the car may still be drivable and does not require towing, see your Holden Dealer as soon as possible, as continued driving could affect fuel consumption, engine performance or may damage the catalytic converter.

However, if the symbol *flashes* and the engine cannot be started, turn the ignition OFF for at least 2 seconds before attempting to start the engine again.



Low Fuel, *in the gauge* (if fitted)

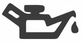
Lights up when fuel gauge enters red zone and comes on earlier when driving around bends.



High beam

Lights up when headlight high beams are in use or flashed.

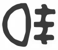
WARNING LIGHTS



Oil pressure

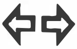
Lights up when ignition is switched on and goes out after the engine is started. It can light up intermittently when idling if engine is hot, but must go out when engine speed is increased.

If illuminated during driving, immediately stop the car and switch off the engine. Check the engine oil level. Do not run the engine with this light showing. If the oil level is normal, have the system checked at your nearest Holden Dealer.



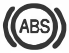
Rear fog lights (if fitted)

Lights up when the rear fog lights are switched on.



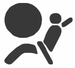
Turn signal indicator

Flashes when turn signal lights are on. If the symbol flashes rapidly a turn signal light bulb has failed.



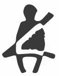
ABS (if fitted)

Lights up for a few seconds when the ignition is switched on. If it does not go out or if it comes on during driving, there is a defect in the ABS (Anti-lock Brake System). The car's brake system remains operational but without ABS assistance, refer Chapter 4. You should consult your Holden Dealer as soon as possible.



Air bag

Lights up for a few seconds when the ignition is switched on. If it does not go out or if it comes on during driving, there is a defect in the air bag system, and it will not work in the event of an accident. You should consult your Holden Dealer as soon as possible.



Seat belt

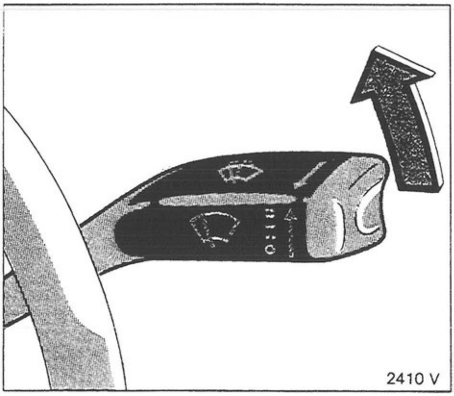
The belt warning light is displayed for a short time when the ignition is first switched ON. This may be accompanied by a warning chime. The warning is designed to remind occupants to fasten their seat belts.

WIPERS & WASHERS

Windscreen wipers

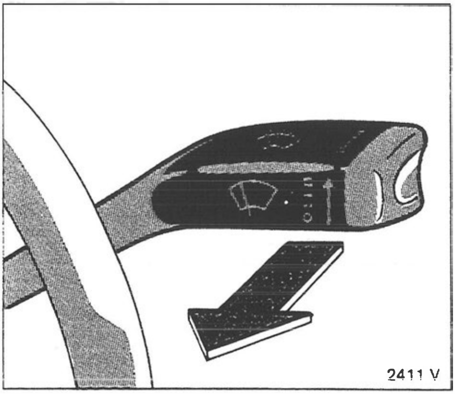
Move the lever upwards.

=	fast
—	slow
- -	intermittent
O	off



Windscreen washer

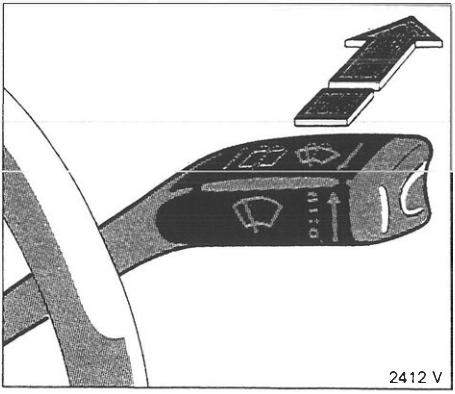
Never operate with wipers on dry glass, as this will damage the rubber. To spray washer fluid onto the windscreen pull the lever toward you. At the same time the wipers are operated for several sweeps.



Tailgate washer (if fitted)

Push the lever away from you to the first ‘stop’ position to turn on the rear wiper. To turn on the rear washer, push the lever further and hold as long as required.

When the lever is in the ‘stop’ position, the rear wiper will operate at an intermittent speed.



EXTERIOR LIGHTS

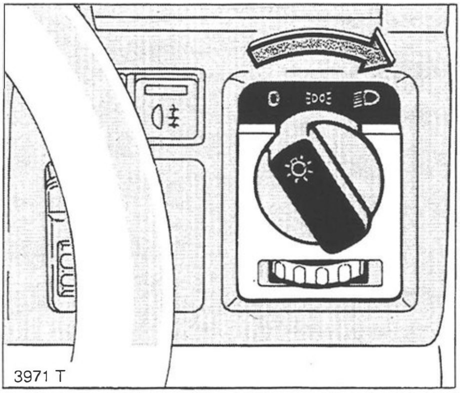
Light switch

off

parking lights

headlights and parking lights

pull to turn on courtesy light



3971 T

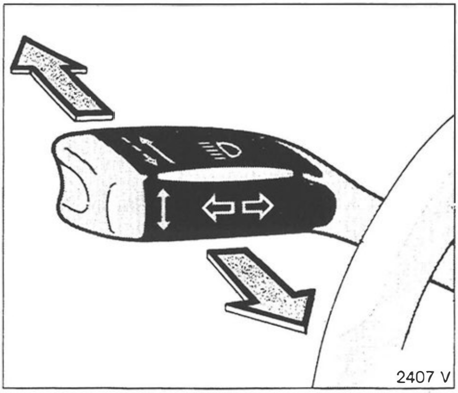
High/low beam

When the headlights are switched on, push the lever away from you, until you feel a click, then release. The headlights will change from low to high beam. Pull the lever back towards the steering wheel to return to low beam. When the high beams are in use a symbol on the instrument panel will glow.

It is also possible to flash the high beams for signalling purposes (even if the headlights are off) by pulling the lever towards you. The lights will remain in high beam as long as the lever is held.

Leaving the headlights switched on without the engine running will eventually flatten the battery.

On some models a warning chime will remind you to switch off the headlights.

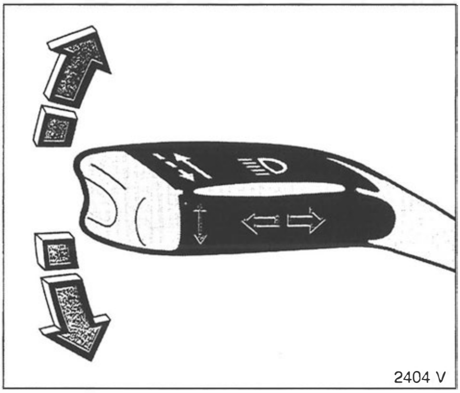


2407 V

Turn signals

Push the lever up or down (as required) to signal a turn.

In some turns (such as changing lanes) the steering wheel is not turned far enough to cancel the turn signal. So, to indicate a lane change, move the lever part way and hold. The lever will return to the neutral position when released.



2404 V

EXTERIOR LIGHTS

Fog lights (if fitted)

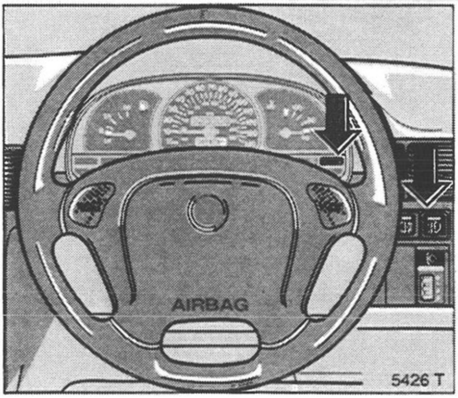
The push buttons for the fog lights are located to the left of the headlight switch.

Push the button to switch on or off.

The button with the green light is for the front fog lights, the button with the yellow light is for the rear fog lights.

The light in the button indicates when the fog lights are working.

Check your State's Laws regarding use of fog lights when driving.



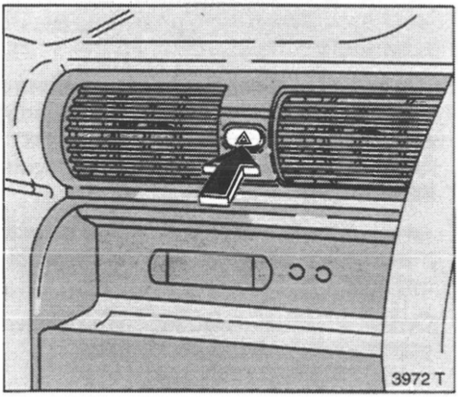
Hazard

Push the button to switch on or off.

Use the hazard warning flasher to warn other drivers if your car becomes a traffic hazard, day or night.

When the hazard warning system is on, the button's symbol will flash, in unison with the external turn signals.

Use of the hazard warning flashers while the car is moving is illegal in some States.



RADIO, CIGARETTES, GLOVEBOX

Radio

Refer to radio leaflet for operating instructions.

Mobile phones and CB radios

Mobile phones and CB radio equipment which use an integrated antenna, may temporarily affect the car's electronics when used inside the car, due to the interference created when transmitting.

Therefore, mobile phones and CB equipment that use an antenna fitted to the outside of the car should be used whenever possible.

If phones or CBs with an integrated antenna *are* used inside the car, they *must* not be operated near the dashboard area.

Ashtrays and cigarette lighter

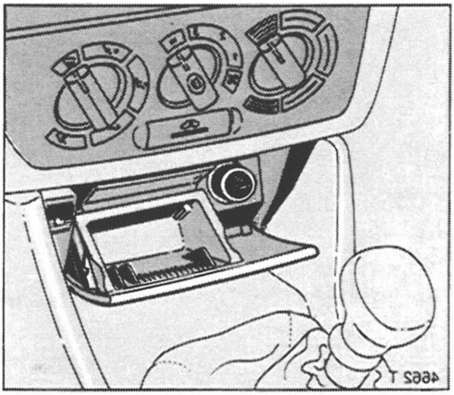
FRONT ASHTRAY AND LIGHTER:

To open, press the symbol on right side of the ashtray cover.

The cigarette lighter works when the ignition is switched on. Push the cigarette lighter inwards to heat.

To empty the front ashtray grasp the inner container on both sides at the indentations. Push forward to disengage and lift upward to remove.

Empty and push back into place.



REAR ASHTRAY:

To open, swivel cover to the rear.

To empty the ashtray, half open cover and lift out the ashtray by the cover.

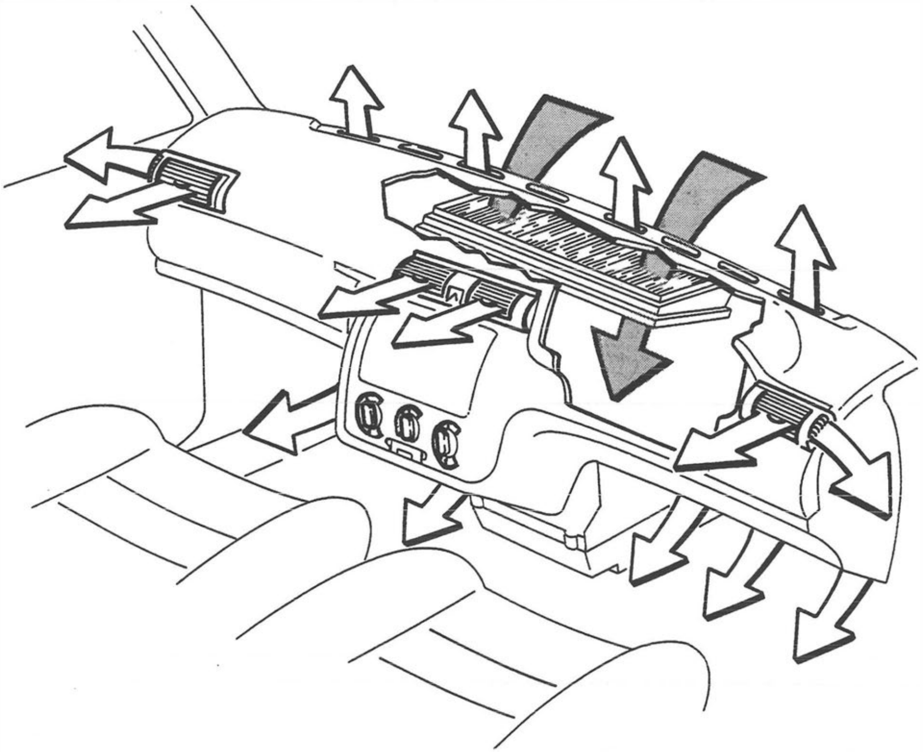
Glovebox lock (if fitted)

Turn the key clockwise to lock, anti clockwise to unlock.

When unlocked, pull the lever up to open the glovebox lid. Push the lid shut to close the glovebox.

VENTILATION

The car features a flow through ventilation system for your comfort. Under reasonable conditions, it shouldn't be necessary to open the windows at any time.

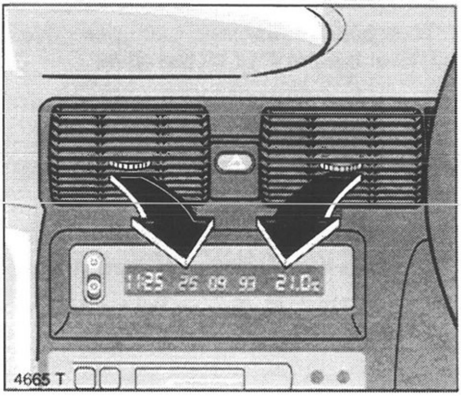


Outside air is drawn into the car through the opening at the base of the windscreen. Do not allow this opening to become clogged with debris, such as leaves or snow.

The demist and foot vents are not adjustable as they direct air to the windscreen, windows or feet in the best possible way.

However, the vents which direct air to the face are adjustable. They can be swivelled and tilted as required. They can also be completely shut off by turning the wheel in the centre of the vent to O position.

A setting like that shown in the illustration, but with the air flow directed slightly upwards, directs a small stream of air to the rear passengers, without impairing the comfort of the driver and front passenger.

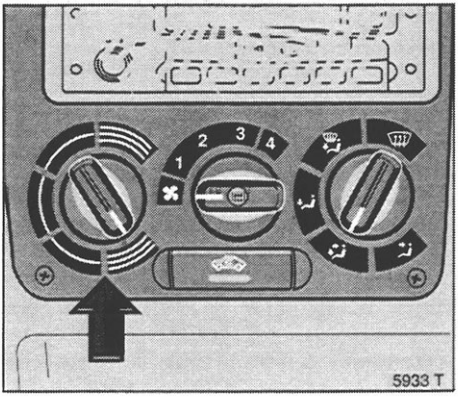


VENTILATION AND HEATING

Temperature dial

Anticlockwise = cold

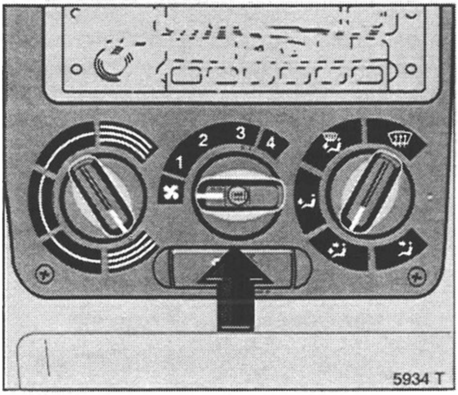
Clockwise = warm



Fan dial

OFF plus four fan speeds are provided.

Note that the rate of air flow is determined by car speed, as well as by the fan. Therefore the fan should be switched on when driving slowly.



Vent dial

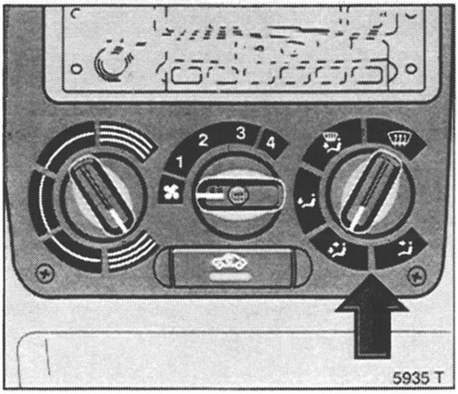
air from demist vents

air from demist and foot vents

air from foot vents

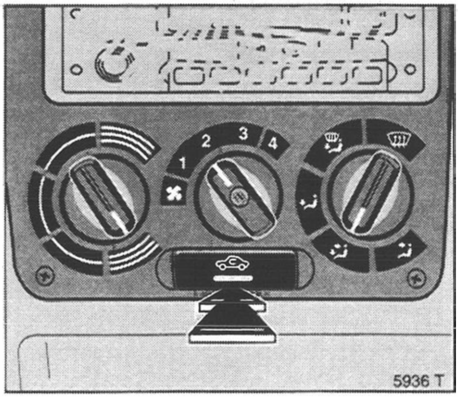
air from face & foot vents.

air from face level vents



VENTILATION AND HEATING

Air intake button



Button out = fresh air

Button in = re-circulated air

When following another car on dusty roads, or to prevent exhaust fumes or odours entering your car, press the button to the re-circulation position (light in switch showing). However, when driving on unsealed roads but where the dust is not airborne, press the button to the fresh position. All windows must be closed and the fan preferably on a high speed so that positive air pressure in the car will prevent dust being sucked in.

Re-circulate reuses interior air and is therefore not recommended for long periods of time. If occupants are smoking, it is recommended that the re-circulate position NOT be used, as the tobacco smoke adheres to the air ducts and will produce stale smelling air.

Heating

- air conditioning switch OFF
- air intake button to fresh air
- turn temperature dial to hot
- fan as required, but not full speed
- vents dial to "foot" level vents

Note that heat will not be available until the engine warms up. Therefore, keep vents closed until the engine has warmed up, then direct vents towards side windows (if required) to aid defrosting.

Ventilation without air conditioning

To conserve fuel when air does not require cooling.

- air conditioning switch OFF
- air intake button to fresh air
- turn temperature dial to cold
- fan speed as required
- set vents dial to "face" level vents
- open all vents

AIR CONDITIONING *(if fitted)*

CAUTION:

The Astra model is not designed to accept non-factory fitted air conditioning systems. Fitting after-market air conditioning systems is *not* recommended by Holden and may void your New Vehicle Warranty, to the extent that Holden considers the non-factory fitted air conditioning affects the specifications or quality of your Holden vehicle.

Air conditioning not only cools the air but also removes moisture. If the temperature dial is moved away from extreme cold, the air will then be reheated before entering the cabin.

The air conditioner is switched on by pushing the button with the snowflake symbol. A light in the switch will glow when the air conditioner is operating. The fan automatically runs at low speed, which can be increased if required.

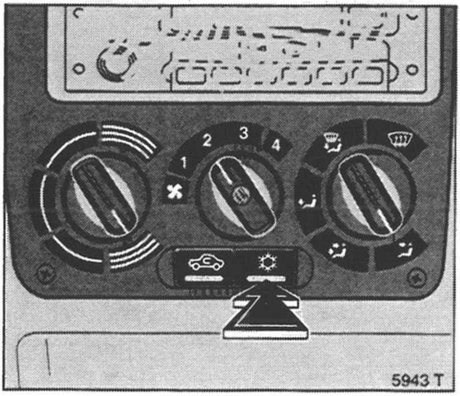
The air conditioning system operates only in the temperature ranges in which it is required; it switches off automatically when the outside temperature is below + 4° C.

To conserve fuel, switch off the air conditioning in cold weather. However, once every two weeks (with the engine running) switch the air conditioner on for 5 to 10 minutes, even in Winter. This will lubricate the air conditioning system.

At least one vent must be open when the air conditioning is ON, so that the evaporator does not ice up due to a lack of air movement.

Normal cooling

- air conditioning switch ON
- air intake button in fresh air position
- turn temperature dial to cold
- fan speed as required
- set vents dial to "face" level vents
- open all vents



Maximum cooling in hot weather or when the car has been left in the sun

Open the windows briefly so that warm air can escape quickly.

- air conditioning switch ON
- air intake button in re-circulate position
- turn temperature dial to cold
- fan to highest speed
- set vents dial to "face" level vents
- open all vents

Do not leave re-circulation on for too long, as no outside air is drawn into the car; cabin air is re-circulated.

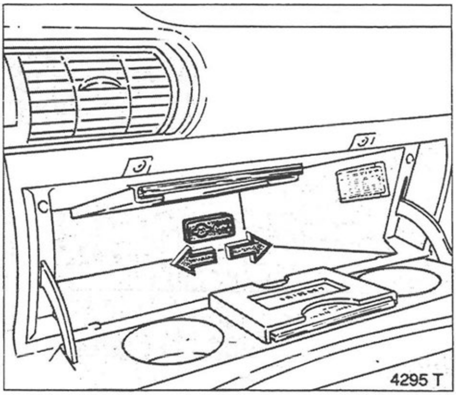
AIR CONDITIONING

Bi-level

- air conditioning switch ON
- air intake button to fresh
- temperature dial as required
- fan speed as required
- set vents dial to "face" or "face and foot"
- open vents as required

Glovebox cooler (if fitted)

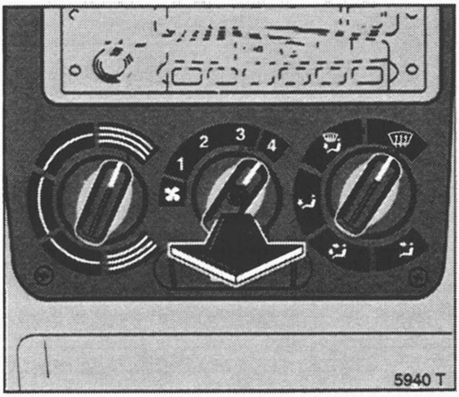
The cover of the vent outlet slides sideways. To close the vent, slide the outlet cover in the direction indicated by the arrow under the **O** mark.



DEMISTER

Window demisting and defrosting

- air conditioning switch ON
- air intake button to fresh
- temperature dial to hot
- fan as required
- vents dial to "demist" or "demist and foot" level vents
- Close all dash vents.



Demister (rear window)

To switch on, pull the dial which controls the fan speed outwards.

When operating, a symbol in the middle of the fan dial will glow.

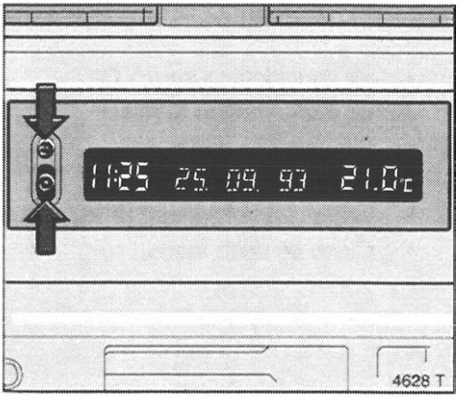
Remember to turn off the demister as soon as the rear window is clear.

INFO DISPLAY (if fitted)

Display shows *time, date* and *outside temperature* when the ignition is ON. When the radio is playing the *date* display is replaced by *radio frequency.*

As with the instrument lighting, the brightness of the display (when park/head lights are on) can be adjusted with the knurled knob below the light switch.

When the ignition is off, the display can be illuminated for approx. 15 seconds by briefly pressing one of the buttons on the left side of the display.



Adjusting the display

- Turn on the ignition and switch off the radio
- Press top button for approximately 2 seconds (hours start flashing)
  Press bottom button until hours are correct.
- Press top button (minutes start flashing)
  Press bottom button until minutes are correct.
- Press top button (days start flashing)
  Press bottom button until days are correct.
- Press top button (months start flashing)
  Press bottom button until months are correct.
- Press top button (years start flashing)
  Press bottom button until years are correct.
- Press top button - clock starts at 0 seconds

Outside temperature

Caution: The road surface may be icy, even though the display indicates a few degrees above zero.

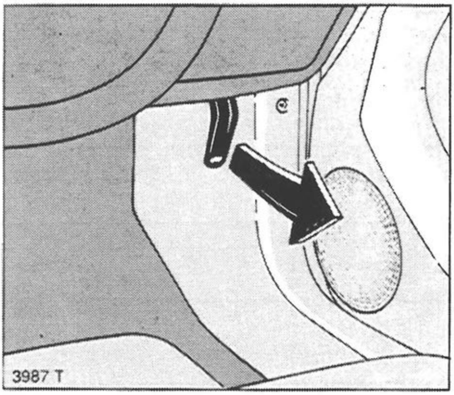
To warn the driver that the road surface may be icy, the display flashes for approx. 20 seconds when the temperature drops below 3° C.

"--.-° C" on the display indicates a fault in the system and you should see your Holden Dealer.

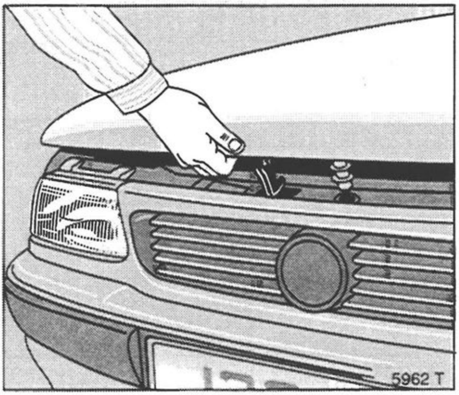
Note that a fall in temperature is indicated immediately, and a rise in temperature after a short delay.

BONNET

From inside the car, pull the lever towards you. This allows the bonnet to release but is prevented from opening by the safety catch.



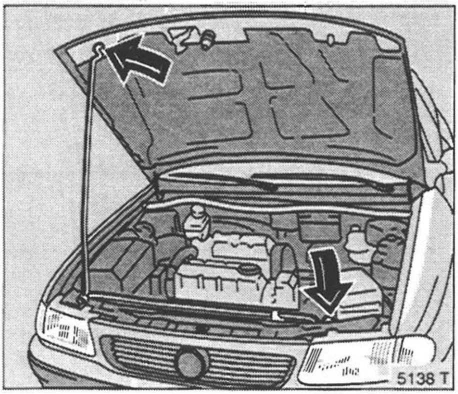
To open completely, lift bonnet slightly, reach in under the bonnet and move the lever upwards (while lifting the bonnet).



Fully open the bonnet. Insert the support rod into the slot provided.

Before closing, press support rod firmly into the holder and lower the bonnet gradually to be finally dropped by its own weight.

Always check that the bonnet is properly closed and that the release lever inside the car has returned to its original position.



Notes

Notes

CHAPTER 2

Locks

Page

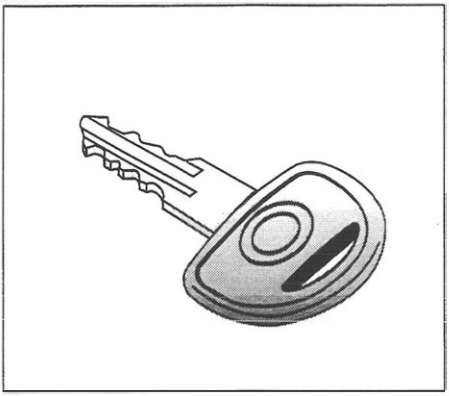
2-2 Keys
2-2 Child safety rear door lock
2-3 Manual door/hatch/boot locks
2-4 Electric door/hatch/boot locks
2-5 Dead locks
2-6 Anti-theft

KEYS AND LOCKS

Keys

Before placing the key on your key ring, remove key code number from the key. Please keep in a safe place, away from your car. Then, if your key is lost, a replacement can be ordered through a Holden Dealer by quoting the key code number and providing proof of ownership.

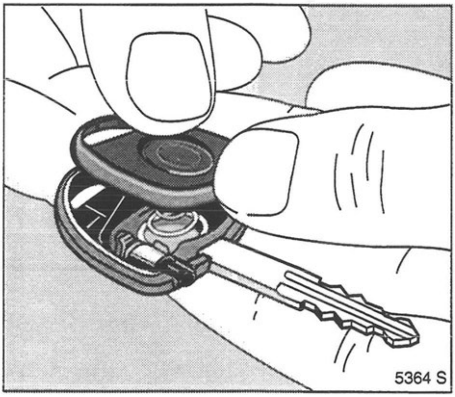
Also note the key code number on alloy wheels if they are fitted with locks.



Key with light (if fitted)

To illuminate (helpful when unlocking at night), press the symbol in the centre of the key head.

If the light becomes dim, open the key head and replace the battery.



Glovebox lock (if fitted)

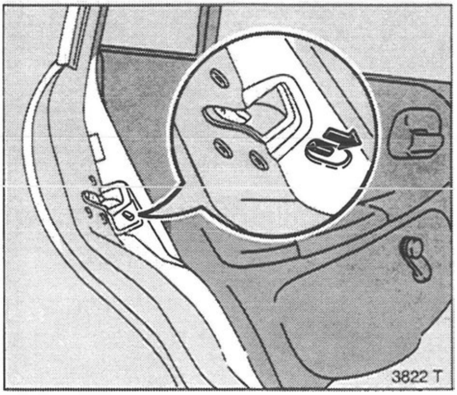
Refer Chapter 1.

Rear "child proof" door locks

Child proof locking helps prevent rear doors from being accidentally opened by small children inside the car.

When the lever is in the lock position (downwards) the rear door cannot be opened from the inside.

It can only be opened by pulling up the inside lock button and then raising the outside door handle.



CAUTION:

For safety, check that the child proof lock is operating correctly (after setting) by trying to open the door from inside the car.

ELECTRIC DOOR LOCKS

Central door locking

- The doors, the hatch/boot lid (if set, refer below) and the fuel filler flap will all lock and unlock simultaneously.
- Central locking is activated by the lock button on the inside of the driver's door, or by using the key to lock/unlock either the driver's door or the passenger's door. Note that the button on the inside of the passenger's door can only 'unlock' central locking.
- If the button on the driver's door is depressed when the door is open, it will spring up when the door is closed, thus preventing the driver from being inadvertently locked out. The button will not, however, spring up if the door handle is *raised* when the door is being closed.
- Doors are locked when the lock button is down and unlocked when the lock button is up.
- To open a front door, turn the key in the lock and raise the door handle.
- Locked doors are unlocked automatically in the event of an accident (to allow assistance from outside), provided that the ignition is not switched off.
- If the system is overloaded as a result of repeated operation at short intervals, the power supply is cut off for approximately 30 seconds.

Hatchback/boot lid

Provided that the key slot is horizontal, the hatch/boot lid will lock/unlock when the doors are locked/unlocked.

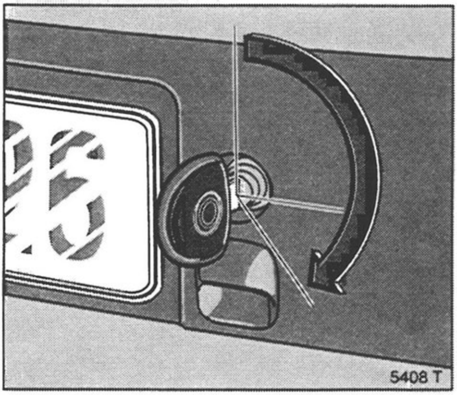
To keep hatch/boot lid permanently locked (regardless of door lock position) turn the key slot to the vertical position.

To unlock, turn the key fully clockwise, past horizontal towards the handle. Press inwards.

To guard against being locked out, the key cannot be removed in this position.

To return the operation to locking/unlocking in synchronisation with the doors, after closing the hatchback/boot lid, turn the key back to the horizontal position.

Turning the key to vertical position will disconnect the hatch/boot lid lock from the central locking system

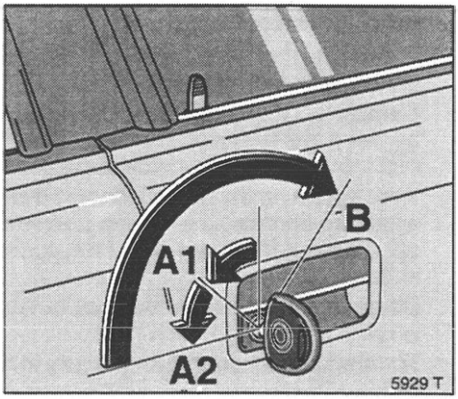


Fuel filler release

The fuel filler flap is unlocked whenever the doors are unlocked. Refer to Chapter 5 when refuelling.

ELECTRIC DOOR LOCKS

Dead locking



On the driver's door lock:

- position **A1** locks all doors and the hatch/ boot.
- position **A2** locks all doors and the hatch/ boot and sets the deadlock.
- position **B** unlocks and turns off the deadlock.

Locking the driver's door with a key not only locks all the doors but allows setting the 'dead lock' protection.

Insert the key into the lock and turn anticlockwise to position **A2** and remove the key.

This locks all doors so that no door can be opened - even if entry is gained by breaking glass. Doors can only be unlocked from outside the car with the ignition key.

Do not use the dead lock if there are people in the car. The doors cannot be unlocked from inside.

To unlock: turn key back beyond vertical position as far as it will go, to position **B**.

ANTI-THEFT (if fitted)

Setting the dead lock also sets the anti-theft system. The anti-theft system is turned off when the doors are un-dead locked.

The anti-theft system monitors:

- movement of the doors, hatch/boot and bonnet.
- glass.
- radio connection.
- ignition and starter.
- circuits in the anti-theft alarm system and prevents the engine from being started

The anti-theft system monitors the above circuits, triggering the alarm if movement is detected.

The system performs a 10 second self test after being turned on. The LED light below the hazard switch will glow while self testing, see following page.

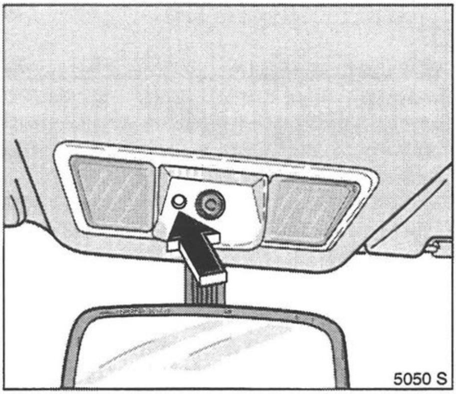
Switching on

- Ensure that the windows, doors, hatch/boot and bonnet are all closed.
- Switch on the anti-theft system by turning the driver's door lock anticlockwise to the horizontal position.

Switching on (if animals to be left in car)

Noise from animals inside the car can trigger the alarm. Use the following instructions if animals are to be left (hopefully for only a very short time) inside the car.

- Ensure that the hatch/boot and bonnet are closed.
- Press the button near the interior light.
- Note that the LED flashes for 10 seconds and then goes out.
- Close doors and switch on anti-theft system. LED lights up for approx. 10 seconds. The system is now activated, without glass monitoring.



Switching off

Turn the key fully clockwise, past the vertical position.

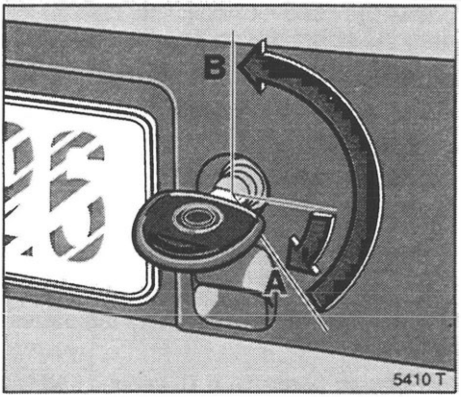
ANTI-THEFT (if fitted)

Hatch/boot lid

Can be opened and shut again (from outside) while the anti-theft system is activated:

- Unlock the hatch/boot lid by turning the ignition key clockwise as far as it will go (position A) and push in. The key cannot be removed.
- Open the hatch/boot lid
- Close the hatch/boot lid
- Lock by turning the key back to the vertical position (B) and remove.

The anti-theft system for the doors cannot be switched on or off from the hatch/boot lock.



Alarm

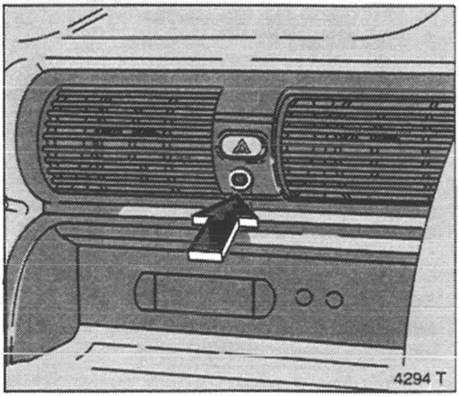
If the alarm is triggered, the horn sounds for 30 seconds and the turn signals flash. The alarm can be stopped by switching off the anti-theft system, i.e. by unlocking the doors.

LED

After being switched on, the anti-theft system performs a self test, within the first 10 seconds. During this time the light, illustrated below the hazard warning button) will glow. If this light flashes during the initial 10 seconds it indicates that a door or the hatch/boot is open. The light will also flash during this time if a fault in the anti-theft system has been found.

Therefore, if the light is flashing within 10 seconds of turning on the anti-theft system (and all the doors and hatch/boot are securely closed) you should contact your Holden Dealer to have the anti-theft system checked.

After 10 seconds the light *should* begin flashing, indicating that the anti-theft system is operational.



Notes

Notes

Notes

CHAPTER 3

Know your car

Page

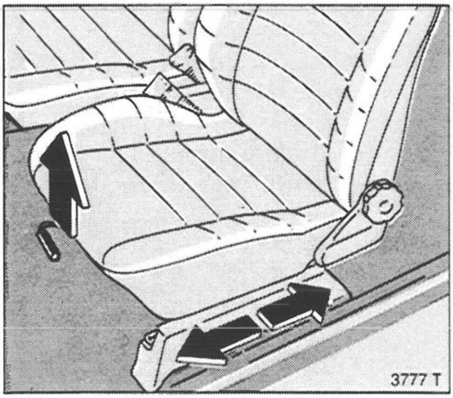
3-2 Seat adjustment
3-4 Seats - rear, fold down
3-6 Seat belts
3-8 Child restraints
3-11 Mirrors
3-12 Windows
3-14 Park brake
3-14 Dome (Interior) light
3-14 Luggage compartment light
3-14 Glovebox light

FRONT SEAT ADJUSTMENT

Forward/rearward

Lift the lever at the front of the seat upwards then slide the seat forward or backward. After releasing the lever, try to move the seat back and forth to check that the catch has locked in position.

Never adjust the driver's seat whilst driving. The seat could move suddenly and cause the driver to lose control.

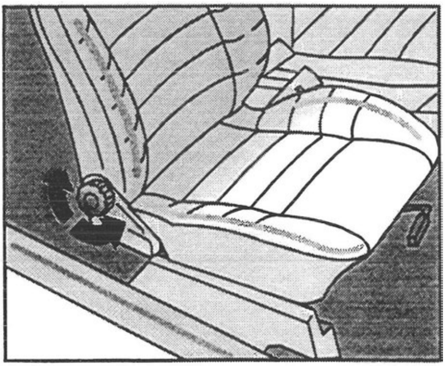


Recline/incline

To adjust the angle of the back of the seat, turn the large, toothed wheel illustrated.

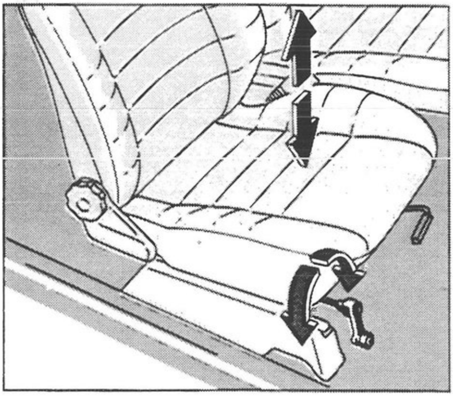
CAUTION:

To avoid reducing the effectiveness of seat belts it is recommended that the reclining seats be used in no more than a semi-reclined position when the car is moving. The fully reclined position should be used only when the car is stationary.



Driver's height adjustment (if fitted)

Turn the crank handle to adjust the height of the driver's seat, in respect to the pedals and steering column.

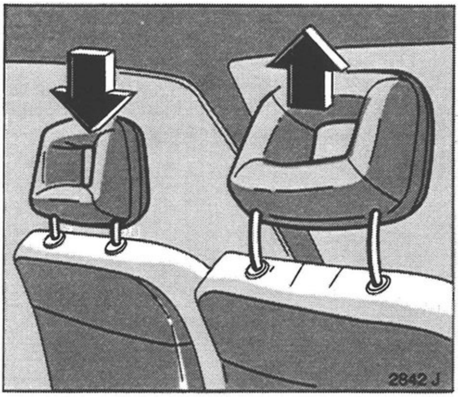


SEAT ADJUSTMENT

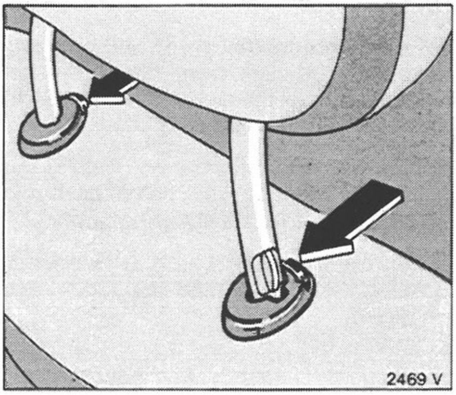
Head restraint

To adjust the height, tilt the head restraint up or down, as required.

The upper edge of the head restraint should be approximately at eye level - never at neck level.



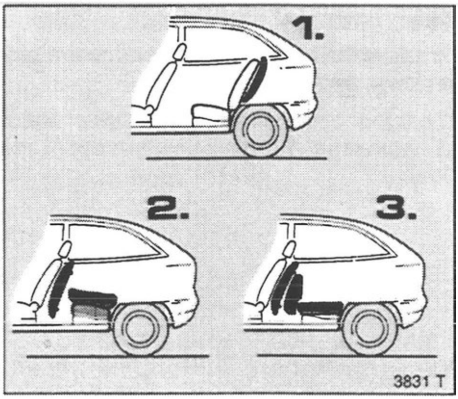
To remove head restraint, release both locking springs while pulling up.



REAR SEAT FOLDING

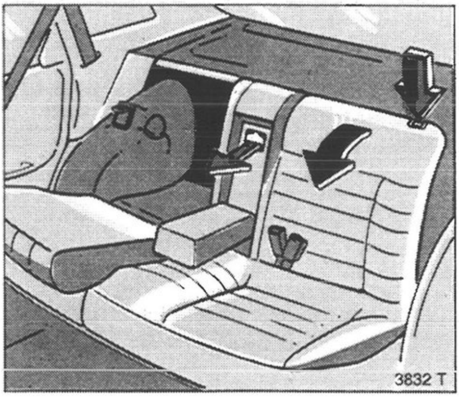
The rear seat may be folded in different positions.

To avoid injury from passing cars, always avoid standing on the road side of the car when converting the rear seat.



Position 1. Hatch: folded parcel shelf

- Push the lock buttons (on top of the seat-backs) and move the seat-backs to the upright position.
- Un-hook the cords of the parcel shelf cover.
- Tilt the parcel shelf up 45° and pull until the cover un-clips from the side trim. Continue to pull the cover backwards and tum over at the same time.
- Slide the cover forward then down to the base of the seat backs. The cover should now have its top facing the back of car.
- Gently return the seat backs to the original position and ensure that the locks have engaged.



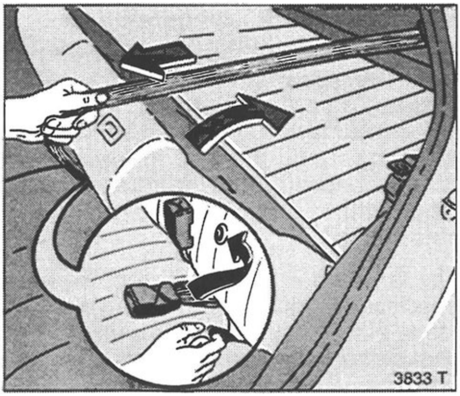
Position 2. Sedan and hatch, folded seat

- Remove any head restraints by pressing lock springs, refer previous page.
- Hook seat belt buckles on back rests, refer illustration on facing page.
- Push the lock buttons (on top of the seat-back) and fold the seat-backs down to meet the seat-cushion.

Hatch only

- Undo the parcel shelf (see position 1) and place behind the back of the front seats.

REAR SEAT FOLDING



Position 3. Fully converted

- Remove any head restraints by pressing lock springs, refer previous pages.
- Hatch only: remove parcel shelf, refer position 1 on previous page.
- Move driver's seat and front passenger's seat fully forward.
- Hook rear seat belt buckles onto back rest.
- A strap is provided at the centre of the rear seat, where the seat-cushion meets the seat-back. Grasp this strap and pull the seat-cushion up towards the front of the car.
- Push the lock buttons (at the top of the rear seat-backs) and fold the seat-backs towards the front of the car.
- Hatch only: place the parcel shelf behind the front seats.

To transport long thin objects, tilt centre armrest forward (*if fitted*). Pull armrest cover handle forwards and then push cover down to seat-cushion.

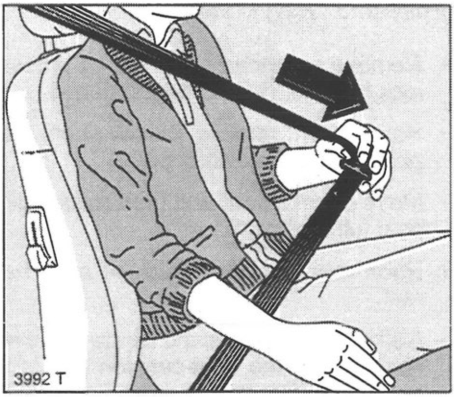
Important

When repositioning rear seats make sure that the seat belts are in front of the seat-back, so that they are not trapped.

Also ensure that the seat-back is firmly locked into the upright position by grasping and attempting to move it.

SEAT BELTS

Retractor belts



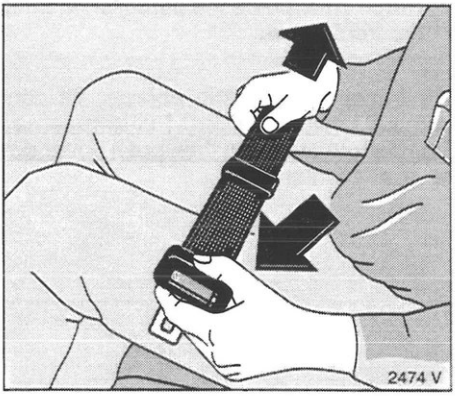
To put on a retractor seat belt, pull the metal tongue across your body and clip it into the buckle. When the metal tongue has locked safely into place you will hear a "click". After fastening, settle the belt at the hip, then tension the belt, by tugging the sash upward. Any extra belt length will retract automatically.

The lap section should be worn as low as possible on your hips, not on your waist. Make sure the sash and lap sections of the seat belt are free from twists and are fitting firmly.

The emergency-locking retractor belt allows you to move freely while the car is travelling normally. The belt will lock immediately on fast braking, impact with a solid object or any quick movement by the wearer.

To undo the belt, press the release button on the buckle and allow the belt to retract. Check that it fully retracts without twisting or turning.

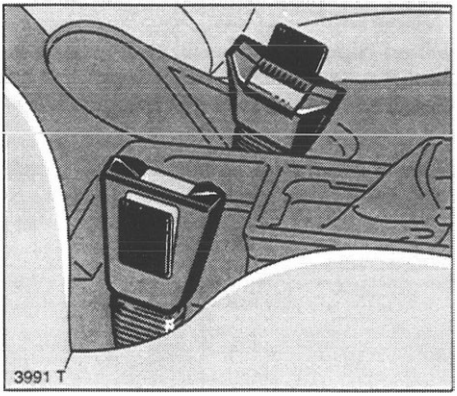
Lap belts (centre rear seat)



Settle yourself comfortably. Bring the tongue adjuster across your body and clip it into the buckle. When the metal tongue has locked safely into place you will hear a "click". Make sure the belt is fitting firmly across the lower hip area and not across your waist.

To adjust the length, press the top of the latch plate and pull the belt.

Mechanical seat belt tensioners

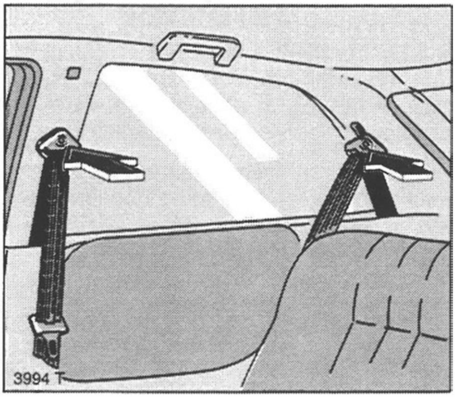


The front seat belt system incorporates (once-only) mechanical belt tensioners. In the event of a frontal collision the belt buckles are pulled downwards; the diagonal and lap belts are instantaneously tightened.

If the mechanical belt tensioners have been actuated the yellow indicator on the belt buckles become visible. Even though the seatbelt (apart from this feature) may remain operational, the entire system *must* be replaced by a Holden Dealer.

SEAT BELTS

Seat belt height adjust (if fitted)



- Do not adjust while driving.
- Press belt guide (indicated by arrow in illustration).
- Move seat belt guide up or down, as required.
- Release belt guide at required position and ensure belt guide has clicked into position.
- Short people should select a low belt guide position, tall people a higher one. This will ensure, for both safety and comfort, that the webbing of the seat belt fits on the shoulder.

Australian law requires that the driver and all passengers be properly restrained at all times with the seat belts provided in the car. Failure to do so could increase the chance of injury and/or the severity of injury in accidents.

WARNING:

Seat belts are designed to bear upon the bony structure of the body, and should be worn low across the front of the pelvis or the pelvis, chest and shoulders, as applicable; wearing the lap section of the belt across the abdominal area must be avoided.

Seat belts should be adjusted as firmly as possible, consistent with comfort, to provide the protection for which they have been designed. A slack belt will greatly reduce the protection afforded to the wearer.

Care should be taken to avoid contamination of the webbing with polishes, oil and chemicals, and particularly battery acid. Cleaning may safely be carried out using mild soap and water. The belt should be replaced if webbing becomes frayed, contaminated or damaged.

It is essential to replace the entire assembly after it has been worn in a severe impact, even if damage to the assembly is not obvious. Belts should not be worn with straps twisted.

Each seat belt assembly must only be used by one occupant; it is dangerous to put a belt around a child being carried on the occupant's lap.

No modification or additions should be made by the user which will either prevent the seat belt adjusting devices from operating to remove slack, or prevent the seat belt assembly from being adjusted to remove slack.

The positioning of the tongue restrictor must never interfere with, or stop, the belt from fully retracting.

CHILD RESTRAINTS

Infant and child restraints

CHILDREN SHOULD BE RESTRAINED AT ALL TIMES WHEN RIDING IN A MOTOR CAR. In some States it is law that children must be belted in, whenever they are travelling in a car in which seat belts are installed. CHILDREN ABLE TO SIT UP should be restrained with regular seat belts or an approved child restraint.

Where children are restrained with the regular seat belt and it is desired to raise their seating position this is to be done only by means of a support which is retained by the belt. NEVER USE A LOOSE CUSHION AS THIS COULD ALLOW SERIOUS INJURY IN THE CASE OF A CAR ACCIDENT.

WARNING:

Child restraint anchorages are designed to withstand only those loads imposed by correctly fitted child restraints. Under no circumstances are they to be used for adult seat belts or harnesses or for attaching other items or equipment to the car.

Only approved child restraint harnesses should be used on anchorage points. See your Holden Dealer for advice about the various types of approved child restraints available.

INFANTS UNABLE TO SIT BY THEMSELVES should be carried in an approved child seat restraint. Check with your local Infant Welfare Centre for availability.

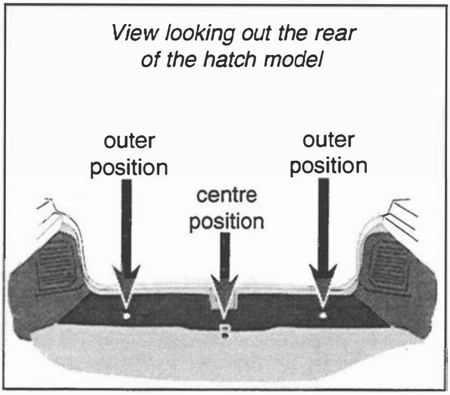
CAUTION:

The anchor fitting referred to on these pages are only applicable to child restraints approved to Australian Standard AS 1754-1991 (and subsequent amendments). Older child restraints may not attach securely to this type of anchor.

CHILD RESTRAINTS

Hatch model

Three anchorage locations are provided in the hatch area, behind the rear seats, as shown.

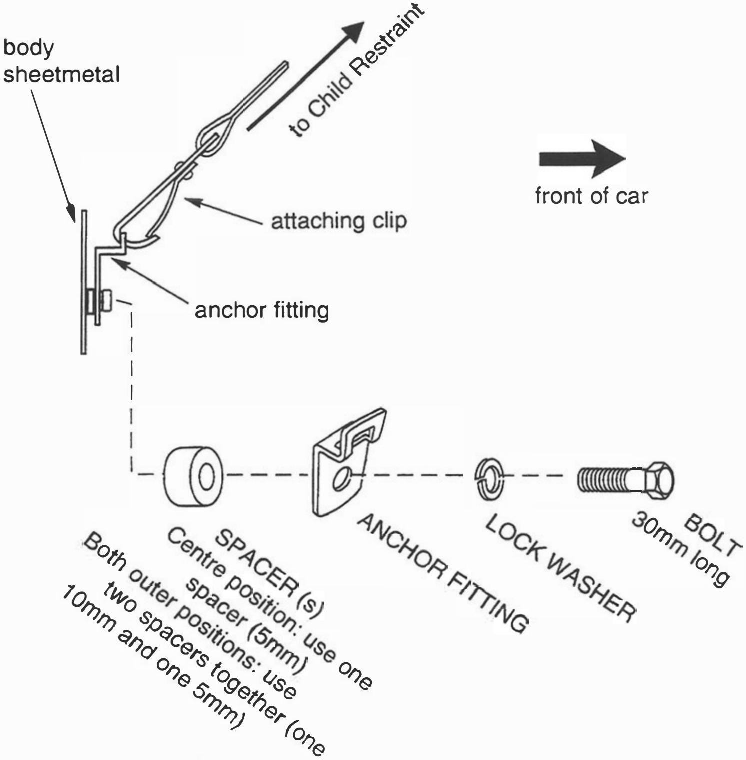

View looking out the rear of the hatch model
outer position
centre position
outer position

One anchor fitting has been installed in the centre position.

Child restraints approved to Australian Standard AS 1754-1991 (and subsequent amendments) can be clipped on to the centre anchor fitting. Older child restraints may not attach securely to this type of anchor.

If you wish to use a child restraint in either of the outer positions, first remove the cover plug.

Then, install an additional anchor fitting, using the bolt, spacer(s) and washer supplied with a child seat, as per the illustration below. Ensure that the bolts (inner or outer positions) are securely tightened, to 15~25 Nm.


body sheetmetal
to Child Restraint
front of car
attaching clip
anchor fitting
SPACER (s)
Centre position: use one spacer (5mm)
Both outer positions: use two spacers together (one 10mm and one 5mm)
ANCHOR FITTING
LOCK WASHER
BOLT
30mm long

CHILD RESTRAINTS

Sedan model

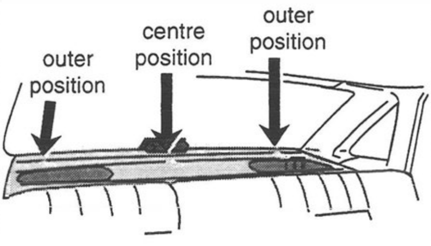
Three anchorage locations are provided on the parcel shelf, up behind the rear seats, as shown.

One anchor fitting has been installed in the centre position, protected by a flip top cover.

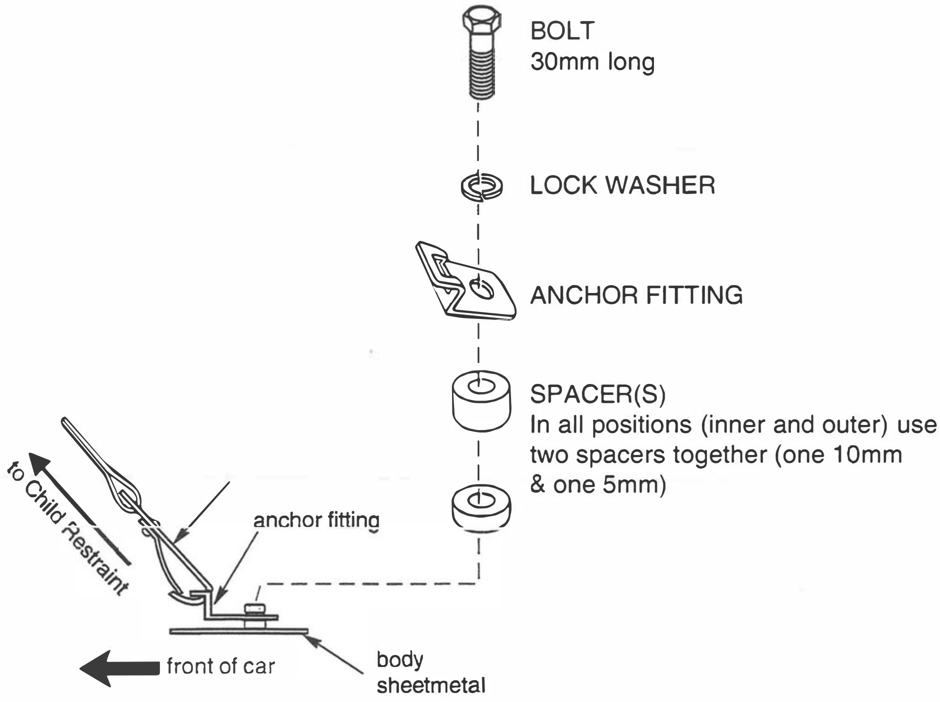
Child restraints approved to Australian Standard AS 1754-1991 (and subsequent amendments) can be clipped on to the anchor fitting. Older child restraints may not attach securely to this type of anchor.

If you wish to use a child restraint in either of the outer positions, first remove the cover plug.

View of the sedan parcel shelf


outer position
centre position
outer position

Then, either move the existing anchor fitting supplied in the centre location (remove cover cap from restraint assembly if the Holden accessory rear blind is fitted), or install an additional anchor fitting, using the bolt, spacer(s) and washer supplied with a child seat, as per the illustration below. Ensure that the bolts (inner and outer positions) are securely tightened, to 15~25 Nm.


BOLT
30mm long
LOCK WASHER
ANCHOR FITTING
SPACER(S)
to Child Restraint
anchor fitting
front of car
body
sheetmetal

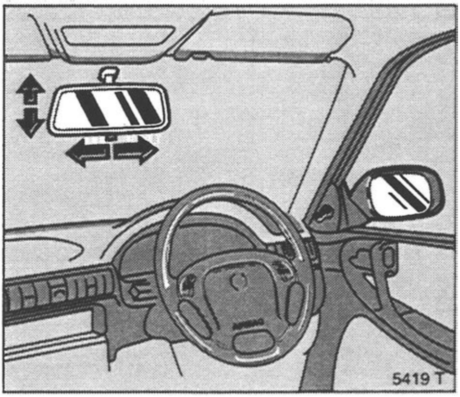
In all positions (inner and outer) use two spacers together (one 10mm & one 5mm)

MIRRORS

Internal rear view mirror

Grasp the mirror and swivel to adjust height.

Using the lever on the lower edge, tilt the mirror to reduce dazzle at night.



Manual exterior mirrors

Grasp the lever inside the car and move the mirror up/down, and in/out, as required.

Electric exterior mirrors (if fitted)

Switch the top, 'rocker' switch to either left mirror or right mirror as required.

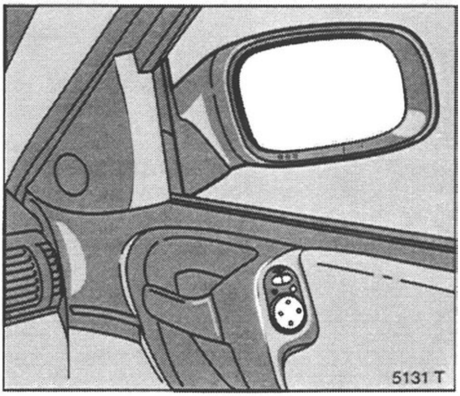
When the ignition is switched on, the larger, four way knob can then be used to adjust the angle of the mirror.

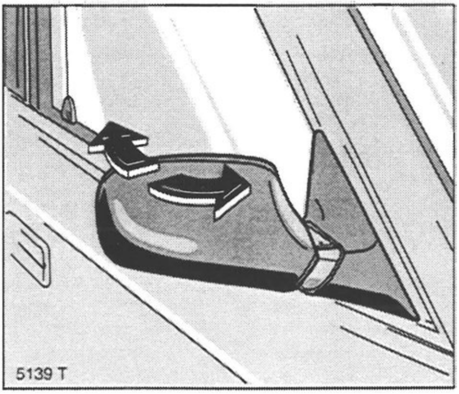
Electrically operated mirrors can be heated by pressing the button above the four way knob. A light next to the button will illuminate when the mirror is heating. Note that the heating will automatically switch off after 15 minutes.

Your passenger's side exterior mirror is convex shaped, therefore making objects appear further away than they actually are.

For the safety of passengers and pedestrians, exterior mirrors will be released from their support under accident-like impact.

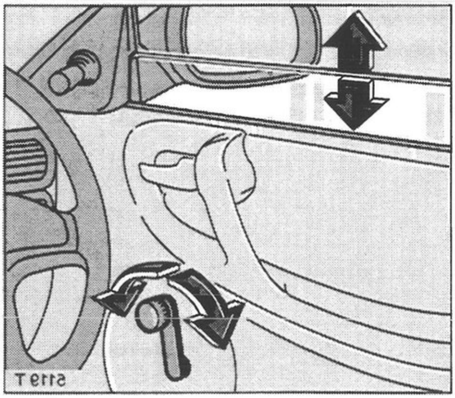
To realign mirrors into their supports, hold the mirror parallel to the mirror support and lock in with a blow on the outer edge of the mirror.



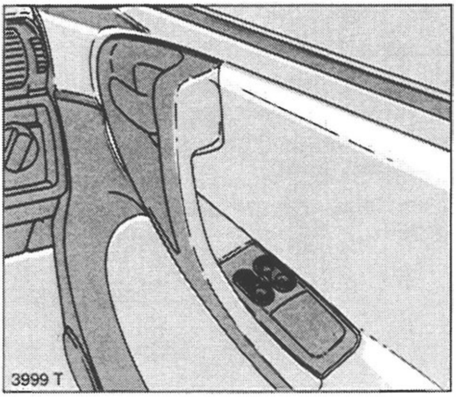


MANUAL WINDOWS

Turn the handle on the door to raise or open the windows.



ELECTRIC WINDOWS (if fitted)



Two switches are provided on the driver's door handle: one for the front passenger's window and one for the driver's window.

An additional switch for the front passenger's window is located on the front passenger's door handle.

Lights in the switches glow when the switches are operational.

To move the window in stages, tap the appropriate switch. For automatic opening or closing (driver's side only), keep the switch pressed slightly longer before removing your finger. To stop automatic operation, tap the switch again.

If the window glass encounters resistance above half way during automatic closing, movement is immediately stopped and the window will open again.

Automatic opening and closing is disabled after interruption of the power supply (battery/fuse) or low voltage. It must then be reprogrammed.

To reprogram: Close doors, switch on ignition, close window and continue to keep switch pressed for at least 5 seconds.

To avoid risk to children (through incorrect use of electric windows), the driver should remove the key from the ignition when leaving the car.

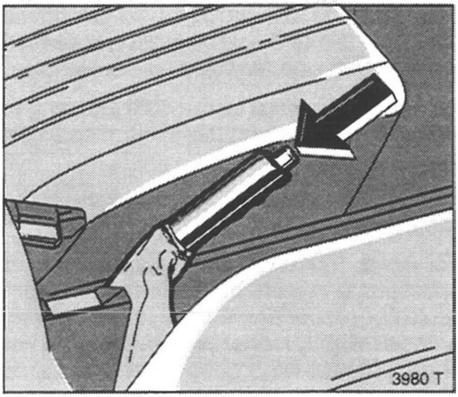
PARK BRAKE AND INTERIOR LIGHTS

Park brake

To apply, pull the lever straight up.

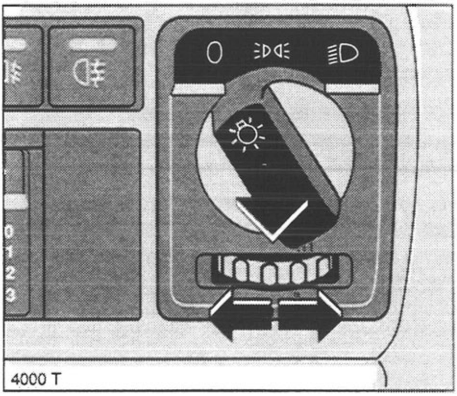
To release, pull the lever slightly upwards, push in the release button on the end of the lever and whilst depressed, lower the lever all the way down.

Never drive the car with the park brake applied.



Interior light

Comes on when either the light switch is pulled outwards or a door is opened.



Dimmer (if fitted)

Gauges are illuminated when the headlights or park lights are switched on.

Brightness can be adjusted by turning the knurled knob, below the headlight switch.

Luggage compartment light

Comes on when the hatch/boot lid is opened.

Glovebox light (if fitted)

Comes on when the glovebox lid is opened and the ignition is on.

Notes

CHAPTER 4

Driving

Page

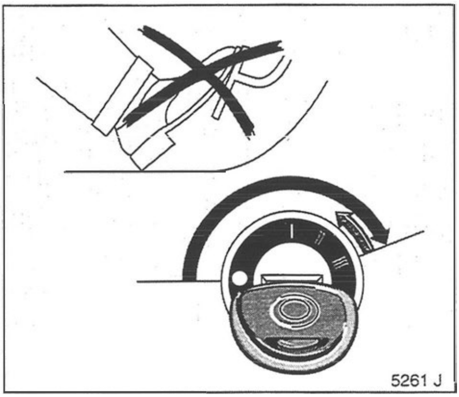
4-2 Engine starting
4-2 Running-in
4-3 Safety
4-4 Automatic transmission
4-6 Manual transmission
4-7 Driving precautions
4-7 Snow chains
4-8 (ABS) Anti-lock Brake System

ENGINE STARTING

1. Apply the park brake firmly and release only after you have started the engine and are ready to drive off.
2. MANUAL: Depress the clutch pedal and shift the gear lever to Neutral position. The clutch pedal can now be released.

   AUTOMATIC : Move the shift lever to P (park) or N (neutral) position. The engine will not start if it is in any other position.
3. Start the engine as outlined below (with your foot off the accelerator).

   For cold or hot starting the procedure is the same. Simply turn the key to the start position and release when the engine starts. YOU DO NOT HAVE TO DEPRESS THE ACCELERATOR PEDAL PRIOR TO, OR DURING, STARTING. DEPRESSING THE ACCELERATOR PEDAL WILL ONLY INCREASE CRANKING TIME AND WILL NOT HELP THE ENGINE TO START.



If the engine won't start and the check engine warning light on the instrument panel is flashing, turn the ignition key to OFF for at least 2 seconds before attempting to start the engine again.

Running-in (for the first 1,000 km)

Drive your car at various speeds. **Do not use full throttle.** Never allow the engine to labour.

Make good use of all gears. Depress the accelerator pedal a maximum of around three quarters of the available pedal travel in all gears and drive ranges.

In the interests of the engine and final drive, do not drive faster than three quarters of maximum speed.

Unless necessary, try not to brake too hard during the first 200 km or after new brake pads have been fitted.

Switching off the engine

If the engine temperature is very high, e.g. after driving in hilly areas, then allow the engine to idle for approximately two minutes (in order to prevent heat accumulation) before switching off the engine.

SAFETY

Before entering the car

1. Check that windows, mirrors and lights are clean.
2. Check tyre inflation.
3. If you intend to reverse, check that the area behind your car is clear.

Before driving off

1. Be sure that all doors are secured.
2. Position your seat for comfortable driving.
3. Adjust rear vision mirrors.
4. FASTEN SEAT BELTS.
5. Check that all the warning indicators light up when you turn the key to start the engine, refer Chapter 1.

Parking

1. Apply the park brake.
2. Automatic transmission: Place in PARK.

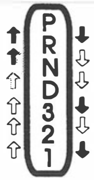
   Manual transmission: If pointing uphill or on flat ground place in FIRST gear.

   If pointing downhill place in REVERSE gear.
3. Shut all windows.
4. Switch off exterior lights.
5. Turn ignition key to LOCK and remove the key.
6. Lock all doors.

CAUTION:

Be careful where you park or drive. As with any car, do not park or operate this car in areas where combustible materials such as dry grass or leaves can come in contact with a hot exhaust system.

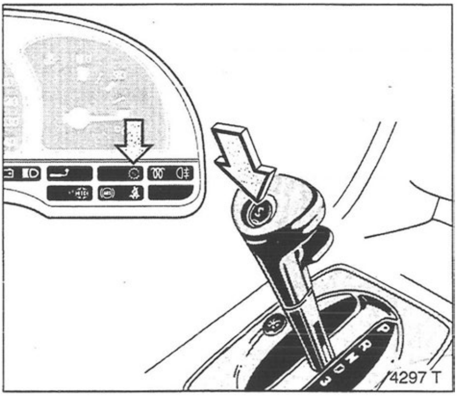
AUTOMATIC TRANSMISSION



The transmission lever is mounted on the console, between the front seats. Raise the release bar below the T-bar handle when shifting into any position indicated by the black arrow.

You may shift without raising the handle into any position marked by the outline arrow.

Sporty/economy drive

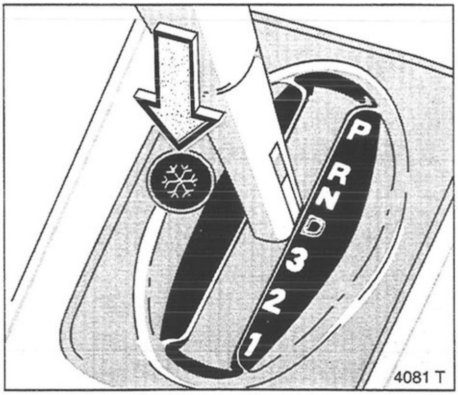


Press the button on top of the T-bar to switch between sporty and economy drive programmes.

When the sporty programme (higher engine speeds) is selected the indicator light will be illuminated on the instrument panel.

Note that after the engine has initially been started and Drive selected, the economy programme is automatically selected.

Starting- off aid (if fitted)



In the event of starting-off difficulties on slippery roads, ensure the T-bar is in Drive and press the button indicated. The car will then start off in third gear.

The starting off aid is switched off:

- automatically above 80 km/h.
- by pressing the button again.
- by moving the T-bar away from the Drive position to P, 3, 2, 1.
- by turning the ignition off.
- holding the accelerator pedal down to the floor for longer than two seconds.

AUTOMATIC TRANSMISSION

P (park)	This stops the front wheels from turning and so should be selected (together with the park brake) when leaving the car. Never select P until your car is fully stopped.
R (reverse)	Never select R until your car is fully stopped. Reversing lights will operate when R is selected and the ignition is on. After reversing, make sure the car has fully stopped before proceeding forward again.
N (neutral)	This is the out-of-gear position. You may restart a stalled engine while the car is still moving.
D (fourth)	This is the most effective position for normal or freeway driving. The drive position gives maximum fuel efficiency, as the transmission can choose the appropriate gear (1 through to 4) for the load and driving conditions.
3 (third)	Third is most effective when overtaking and gives responsive acceleration and deceleration, especially in hilly areas. This position allows the transmission to shift to first, second or third gear as conditions require. Drive (4th gear) is excluded.
2 (second)	Use this position when going down a moderate gradient where you want to slow down a little without using the brake. The transmission will shift to first or second gear as required. Move the lever back into the Drive position to return to normal driving.
1 (first)	Use this position when strong braking effect is needed on a steep gradient. Remember to move the lever back to Drive position so that the transmission will again up shift into higher gears. If 1st gear is selected at too high a speed then the transmission remains in 2nd gear until you have slowed down sufficiently.

Notes

- Don't rev the engine with the brakes on in either 1, 2, 3, D or R. This will overheat the transmission.
- Don't rev the engine to hold the car on a slope. Use the brakes.
- Don't coast the car in N - this lessens your control and the engine braking power.
- Refer Chapter 7 when checking automatic transmission fluid level.
- NOTE: The engine will not start unless the selector is in P (park) or N (neutral).
- If the car suddenly will not accelerate as usual, or will not shift down to a lower gear when you press the accelerator pedal to the floor, or the Sporty drive program indicator light flashes, then a fault is indicated in the transmission. You should use the T-bar to manually shift through the gears (1, 2, 3, D). Consult a Holden Dealer as soon as possible.

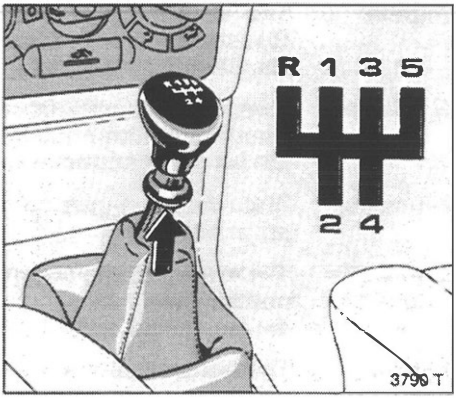
MANUAL TRANSMISSION

This system has 5 forward gears and a reverse gear. The shift pattern illustrated, is also found on the top of the gear shift lever.

When selecting fifth gear you must shift the gear lever sideways against light spring pressure in order to pass into the gear.

To select reverse gear, lift the ring beneath the knob on gear shift lever and move the lever into the reverse position.

If the gear does not engage easily, then release and depress the clutch pedal, or try moving to another gear, before trying again.



Operating notes

- When shifting from one gear to another, be sure to depress the clutch pedal fully to avoid clashing and possible chipping of the transmission gears.
- Never attempt to engage reverse gear until the car has completely stopped. A slight pause (a few seconds) between depressing the clutch pedal and moving into reverse gear is desirable to allow all the rotating components to stop and avoid gear clashing. Whenever reverse gear is selected with the ignition ON, the reversing lights will operate.
- Shift the gear lever with a moderate effort to allow time for the transmission synchronizers to work properly.
- Do not drive with your foot resting on the clutch pedal. This will cause substantial clutch wear.
- When stopped on an incline do not hold the car by slipping the clutch. Use the park brake or brake pedal.
- To maintain safe speeds on a steep downgrade and to reduce brake wear and overheating, shift into a lower gear before starting the decent.
- Do not over-speed the engine when shifting down to the next lowest gear.

DRIVING PRECAUTIONS

Brakes

- Power assisted brakes, which are fitted to your car, utilise vacuum from the engine when it is running. Never let the car run down steep grades without the engine running. Never coast with the engine switched off.
- Driving through water may affect performance. Applying the brakes lightly will indicate whether they have been affected. To dry them quickly, lightly apply the brakes while maintaining a slow forward speed with an assured clear distance ahead until brake performance returns to normal.
- Brake pedal travel should not be obstructed by ill-fitting floor mats or any other material under the pedal which causes interference with normal pedal movement.
- Your seat should be positioned so that you can reach the brake pedal satisfactorily under all braking conditions.

Power steering

- If the power steering is rendered ineffective because the engine has stalled, the drive belt broken or if the pump reservoir is empty of fluid, the car can still be steered. However, due to the much greater effort required to steer, it is recommended that you have the problem fixed promptly.

Loose articles

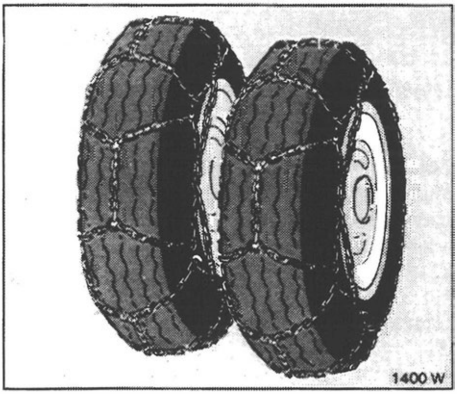
Do not leave loose articles or luggage in the passenger compartment. Whenever possible, loads stowed in the luggage compartment should be firmly secured.

Tyre traction

A decrease in driving, cornering and braking traction occurs when water, snow, ice, gravel or other materials are on the road surface. Driving practices and car speed should be adjusted to the road conditions.

Snow chains

- Astras are 'front wheel drive' cars, and as such, snow chains are only fitted on the front (driving) wheels.
- They must be fitted symmetrically on the tyre to ensure that they are seated concentrically. Only fine-linked chains, not protruding more than 15 mm on the tyre tread and inside of the tyre (including the chain lock) should be used.
- Depending on design, large hub caps may come into contact with parts of the chains. In such cases, remove the hub caps.
- Tyre chains can only be used at speeds up to 50 km/h and, when travelling on roads that are free of snow they should only be used for brief periods, since they are subject to rapid wear on hard roads and may snap.



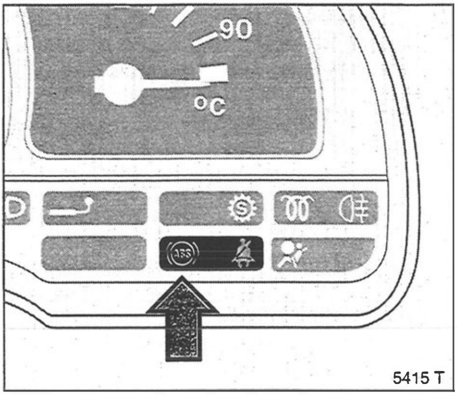
ABS (if fitted)

ABS (Anti-lock Brake System) continuously monitors the car's brake system and prevents the wheels from locking, irrespective of the road conditions and tyre grip. It starts to regulate the braking effect as soon as a wheel shows a tendency to lock. The car remains steerable, even in the event of panic braking, for instance on bends or when swerving to avoid an obstacle.

However, DO NOT let this special safety feature tempt you into taking risks when driving. Traffic safety can only be achieved by safe driving.

In an emergency braking situation the driver should keep full force on the brake pedal, without 'pumping' the brake pedal. 'Pumping' the brake pedal can reduce brake efficiency when ABS is controlling the braking.

The ABS warning light is illuminated for a few seconds when the engine is switched to position II (ignition ON). If it does not go out, or if it comes on during driving, there is a defect in the ABS. The car's brake system remains operational but without ABS assistance. You should consult your Holden Dealer as soon as possible.



The braking effect is regulated by the ABS every millisecond during braking.

When your car is in a critical braking condition ABS will make itself noticeable through pulsing of the brake pedal and the noise of the regulation process, thereby reminding you to match your speed to the road conditions, even though it is keeping control of the braking.

Shortly after driving off again, the system performs a self check, which may be audible.

Notes

CHAPTER 5

Fuel

Page

5-2 Carbon monoxide caution
5-3 Petrol filling
5-4 Fuel Tank capacities
5-5 Emission Control
5-6 Reducing fuel consumption

PETROL

EXHAUST WARNING - CARBON MONOXIDE POISONING

Exhaust gases can produce carbon monoxide, a dangerous gas, which can cause unconsciousness and even death to both humans and animais.

You could inhale the gases if the exhaust system on your car is faulty.

To protect against exhaust gases entering the car, the exhaust system and body should be inspected:

- each time the car is serviced

- whenever a change is noticed in the sound of the exhaust system

- whenever the exhaust system, underbody or rear of the car is damaged.

Take the car to your Holden Dealer if you think your car needs inspecting for any of the above reasons.

DO NOT SIT (OR LEAVE THE CHILDREN OR PETS) IN A PARKED CAR FOR ANY EXTENDED PERIOD OF TIME WITH THE ENGINE RUNNING. DO NOT RUN THE ENGINE IN AN ENCLOSED AREA (SUCH AS THE GARAGE) ANY LONGER THAN IS NEEDED TO MOVE THE CAR.

Driving with the hatch/boot open is not recommended. If you *must* travel with hatch/ boot open, close all windows, ensure that the heater controls are set to outside (rather than re-circulate) with air directed to the face and the fan on the highest speed. Do not exceed 50 km/h unless necessary.

PETROL

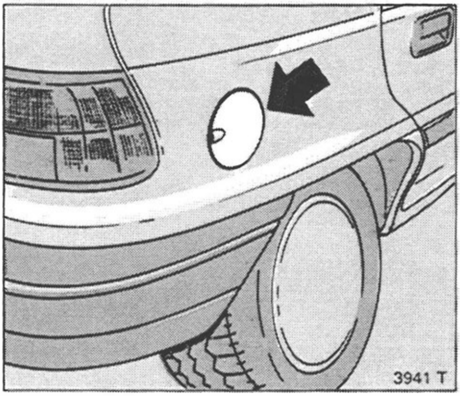
CAUTION:

- Petrol should be regarded as extremely flammable and highly explosive.
- Always turn off the engine when refuelling.
- Do not smoke or allow open flames or sparks near the car when refuelling.
- If petrol fumes are smelt while driving, the cause should be found and corrected without delay.

The petrol filler is located on the driver's side of the car.

The fuel filler is unlocked when the doors are unlocked and locked when the doors are locked. Remove filler cap by turning anticlockwise.

After refilling, tighten the cap clockwise until a clicking noise is heard and close flap.



Over filling of the petrol tank can affect the evaporative Emission Control System and can also result in a smell of petrol inside the car. Therefore:

1. Petrol tanks should always be filled at the intermediate or fast fill rate. Don't add any more petrol after the petrol filler first clicks off (or petrol blows back) - as this allows room for the petrol to expand inside the tank.
2. It is permissible to "trickle fill" petrol tanks when cars are to be driven for more than 50 km straight after the tank is filled. However, this is not recommended on hot days (over 30°C).

Wipe off any overflowing petrol from the car body immediately.

PETROL

Tank capacity = 52 litres (sedan and hatch)

Petrol filler nozzle restrictor

To help the atmosphere, your car has been designed to operate on UNLEADED PETROL. A petrol nozzle restrictor is fitted to ensure that only UNLEADED petrol is used. This allows the thinner, unleaded petrol nozzle to open the hinged flap, so that petrol can be added to the tank. The leaded petrol nozzle is wider and therefore cannot open the flap. The use of fuel other than unleaded fuel will seriously damage the fuel system of your car (particularly the catalytic converter and oxygen sensor) and may void your Warranty.

Petrol requirements R.O.N. (Research Octane Number)

2.0 litre engines

Use **PREMIUM** UNLEADED PETROL of at least 95 octane rating.

1.8 litre engine

Use UNLEADED PETROL of at least 91 octane rating.

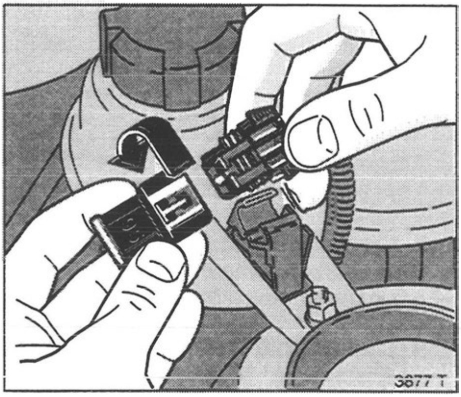
1.6 litre engines

The fuel coding plug is marked 95 on one side, 91 on the other.

This designates the octane rating of the fuel being used in the car.

You may elect to use either UNLEADED 91 octane rating or UNLEADED 95 octane rating.

The program number (91 octane or 95 octane) can be seen in front of the locking clip. If petrol with the other octane number is to be used, allow the fuel to run low, fill the tank, make sure the ignition is switched off, release coding plug from retainer, open locking clip, remove coding plug, turn plug over, re-insert into retainer and replace into car.



You should never run the car with low octane (91 rating) petrol if the coding plug is turned to 95.

EMISSION CONTROL

Your car is fitted with emission control systems which are designed to reduce the amount of hydrocarbons (HC), carbon monoxide (CO), and oxides of nitrogen (NOx) that are emitted from the engine and fuel system into the atmosphere. Hydrocarbons and oxides of nitrogen, when exposed to sunlight under certain conditions, contribute to photochemical smog. In addition, carbon monoxide is toxic when it becomes highly concentrated in the air.

Owner responsibility

Cars sold and serviced within Australia have been designed to comply with Australian Design Rules and State Regulation emission requirements.

The engine or exhaust system of your car must NOT be modified in any way. Any change to the Manufacturer's design may increase the emissions or otherwise defeat the intent of the regulations.

Any person who removes, modifies or hinders any part of the emission control system fitted to a car will be contravening regulations. It is also illegal to drive such a car.

Maintenance requirements

To ensure continuing compliance with the regulations you must maintain your car's emission control system as per your car's service manual, at the frequency shown in the Holden Maintenance Plan in Chapter 12.

It is recommended that the necessary servicing be performed by an authorised Holden Dealer who has the specialised servicing equipment and trained personnel available to ensure that the adjustments and services specified are carried out.

REDUCING FUEL CONSUMPTION

Engine

Maintain the engine in peak mechanical condition by having it serviced regularly in accordance with the Holden Maintenance Schedule, refer Chapter 12. This will ensure items such as the spark plugs, air cleaner, engine idle speed etc. are maintained for minimum fuel usage and peak engine performance.

Tyre pressure

Keep the tyres at the recommended pressures. Under-inflated tyres create extra rolling resistance which contributes to increased fuel consumption.

Wheel alignment

Maintain correct front wheel alignment. Incorrect alignment makes the front wheels drag and increases fuel consumption.

Warm ups and idling

Avoid long engine warm ups. They are unnecessary and waste fuel. An engine takes approximately five minutes to reach its efficient operating temperature and it does this most effectively when driving.

You should also avoid long engine idling. If your have to wait for more than a couple of minutes turn off the engine to conserve fuel.

Accelerating, driving and braking

Accelerate gently - avoid rapid starts, sudden bursts of speed and full throttle acceleration - they're certain fuel wasters.

Drive the car at steady speeds where possible (after run-in). It is desirable to reach top gear as soon as possible, but under no circumstances should you force the engine to labour in top gear.

Riding the brake

"Riding the brake" by resting your foot on the brake pedal when you do not intend to brake can cause overheated brakes. This can wear out the brake pads faster, damage the brakes and waste fuel.

Air conditioning

Turn off the air conditioning, when not required.

Roof racks and ski-holder

Roof racks and ski-holders can increase fuel consumption by approx. 1 litre per 100 km, due to the increased air resistance. Remove them when they are not needed.

Change down!

When decreasing speed, shift down into the next lowest gear. Do not slip the clutch with a high revving engine. This is especially important when hill climbing.

Loading

Unnecessary weight increases fuel consumption, especially when accelerating. In city traffic, a load of 100 kg can increase fuel consumption by 0.5 litres per 100 km.

Notes

Notes

Notes

CHAPTER 6

Emergencies

Page

6-2 Accidents
6-3 Medical assistance
6-4 Flat tyre
6-7 Towing a disabled car
6-8 Engine overheating
6-10 Flat battery
6-12 Air bag

Your new car is covered for 3 years by 24 hour Roadside Service, refer Chapter 9.

ACCIDENTS

All motorists are advised to learn what to do at the scene of an accident, particularly where persons are injured. Injured people can choke to death if their air passages are not cleared. They can bleed to death unless the bleeding is stopped. They may require mouth-to mouth resuscitation or may have to be moved, even though badly injured. It is important that you understand how to avoid further damaging an injured neck or back or other broken limbs. In all cases, ensure safety for the rescuers, victims and bystanders. The following notes may help.

Part 1. Accident - being involved.

If you are involved in an accident you are advised to do as follows:

Stop immediately and remember to turn off the engine and apply the park brake.

Remember that time is vital. Remain calm and alert. Think quickly and clearly.

Give all possible assistance to all injured persons (see Part 3. Medical assistance).

Send for police and ambulance if anyone has been injured. Give information as accurately as possible. Give the exact location, the number of injured people and a brief report on the overall situation.

Perhaps take charge of the situation.

Warn all other traffic approaching the scene. Turn off all ignition switches. Stop any smoking near spilt petrol. In darkness, try and light up the area to warn others - use a torch, headlights etc. Do not use flammable items.

Clear the road of accident debris.

Exchange your name, address, car registration number and the car owner's name and address with the other parties involved in the accident.

If damage to property only has occurred, report the facts to the owner of the damaged property, to his or her representative, to any police present at the scene or to the nearest Police Station.

Try to note all important facts because such details may be important if needed later.

Part 2. Accident - being a witness

If you witness a road accident or it becomes your task to stop and help at the scene of an accident:

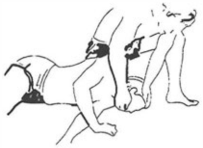
- Keep in mind that an observant witness can prove most helpful. Some day you yourself might be very glad of help from a witness.
- DO NOT stop at the scene of an accident just to be a spectator.
- Where other people are already in attendance and giving assistance, you should stop only if you can contribute assistance.
- Give what assistance you can to any injured persons. (See Part 3. Medical assistance).
- Follow most of the steps suggested in Part 1. Perhaps you may have to take charge of the accident situation.

ACCIDENTS

Part 3. Medical assistance

Keep calm and think clearly. Your experience may not be much but do your best.

- Look after the unconscious person first. Check airway, breathing and circulation. If no breathing, then check if air passages are clear, i.e. nose and mouth. Use your fingers to clear air passages if necessary. If the air way is clear then mouth-to-mouth resuscitation may be needed at once.



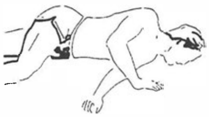
Unconscious people can choke.

Carefully turn to one side.

Tilt the head back slightly.

Wipe out the mouth with your finger to remove blood, vomit, broken teeth or dentures.

- You must be most careful in moving an injured person. Often it is best not to move at all but in conditions of danger, this is not always possible. Serious and permanent damage can be done to an injured neck or back if not supported during movement. NEVER BEND OR TWIST A NECK OR BACK. KEEP THEM STRAIGHT. All injured limbs require support when an injured person has to be moved.
- Provided it is not dangerous to do so because of other injures, an unconscious person will do best in the position illustrated here.



Lay the person on one side and - if it will not aggravate any injuries - then:

Bend the uppermost knee until the thigh is at right angle to the body.

Bend the uppermost arm and elbow so that the hand lies near the face.

Gently pull the underneath arm so that it rests straight on the ground free of any body weight.

- Try to stop bleeding by applying direct pressure, using your hand, or by pressing torn flesh together. Use any clean cloth available. Fold cloths to make pads. If necessary press one pad on top of another. Keep pressure around edges of a wound BUT NEVER USE A TOURNIQUET.
- Shock may be treated by reassurance, relieving pain, controlling any bleeding and keeping the injured person warm but not hot. Best not to give any fluids and NEVER ALCOHOL.
- If the injured person is in danger and has to be moved, try and have three or four people help and concentrate on not bending or twisting the neck, spine and injured limbs. Keeping the neck and spine straight is most important.

FLAT TYRE

If using a jack other than the one supplied with the car, refer Chapter 7 for lifting positions.

CAUTION:

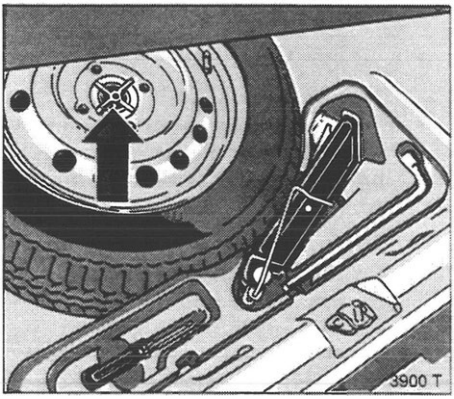
- Use the jack only for lifting the car when changing wheels.
- Never get beneath the car when it is only supported by the jack.
- Do not start or run the engine while the car is only supported by the jack.
- All passengers should be out of the car when it is being jacked.
- Use the jack only at the designated lifting points. Use in other locations could damage the car.
- The car should only be jacked on hard, level surfaces.

1. Park on level surface and set parking brake firmly.

2. Remove the ignition key and place manual transmissions in REVERSE gear or automatic transmissions in PARK.

3. Remove the jack and tools.

   The spare wheel, jack and tools are stored under the luggage compartment floor area.



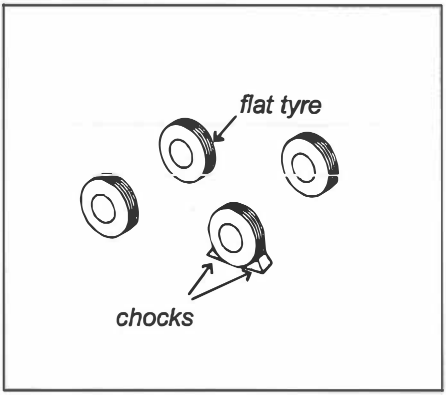
4. Remove the spare wheel, secured by plastic wing nut.

   Note that the spare wheel for GSI models may have a steel rim, different in appearance to the alloy road wheels on the car.

5. Chock the wheel diagonally opposite the flat tyre by placing wedge blocks, any available blocks of wood or rocks behind and in front of it.

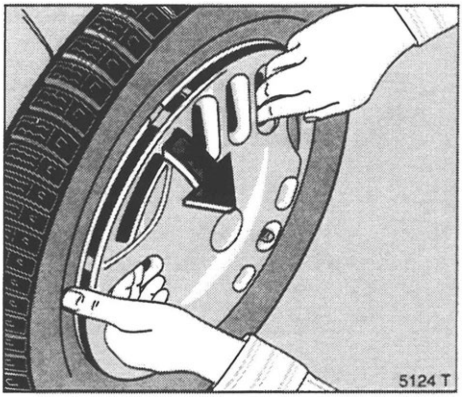
6. Remove the wheel trim

   Alloy wheel may have a lock fitted to the centre cover. Unlock, then remove cover.

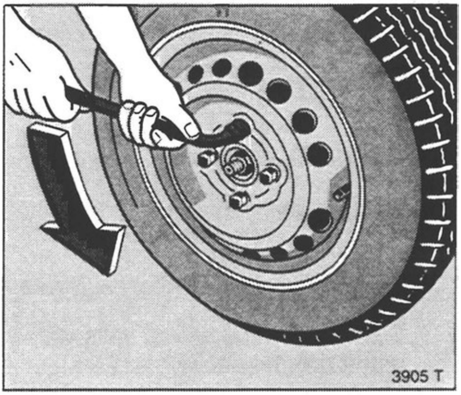


FLAT TYRE

On cars with wheels covers, remove by hand, as shown.

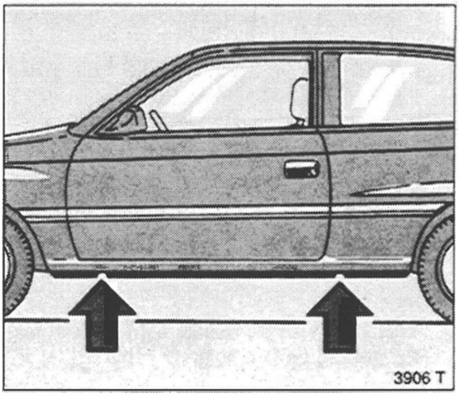


7. Loosen (but do not remove) the wheel bolts with wheel bolt wrench.



8. Semicircular cut outs the lower edge of the car's body indicate the points where the jack is to be placed.

   On some models the jacking points are covered by flaps, which must be removed before placing the jack in position.



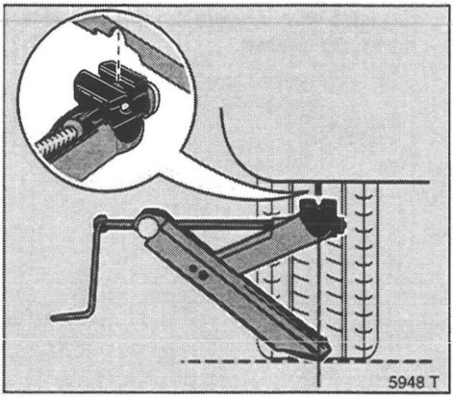
CAUTION:

Failure to position the jack as described above could result in serious personal injury or car damage caused by the car slipping off the jack.

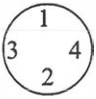
FLAT TYRE

9. Position the jack in the recess that is nearest the flat tyre.

   Ensure that the jack claw surrounds the semicircle cutout in the car and jack base is in line with the claw.



10. Raise the car by turning the crank handle, until the tyre is clear of the ground.
11. Remove the wheel bolts and place together in a dry spot, to avoid getting dirt in the threads.
12. Remove the wheel from the car and change it over with the spare.
13. Replace the wheel bolts and tighten by hand. Then, with the wheel wrench, lightly tighten in a crisscross sequence.
14. Lower the car completely and remove the jack.
15. Fully tighten the wheel bolts with the wheel wrench in a crisscross sequence, as shown.



16. Press on the wheel/wheel bolt trim. Wheel covers have a valve symbol on the rear of the cover, which should point towards the valve.

    Note that on light alloy wheels you should insert the pin on the back of the hub cap into the corresponding hole in the wheel.
17. Models with jacking point covers: refit cover to body by hand.
18. Stow away wheel, tools, and jack.
19. Have the flat type repaired as soon as possible.

CAUTION:

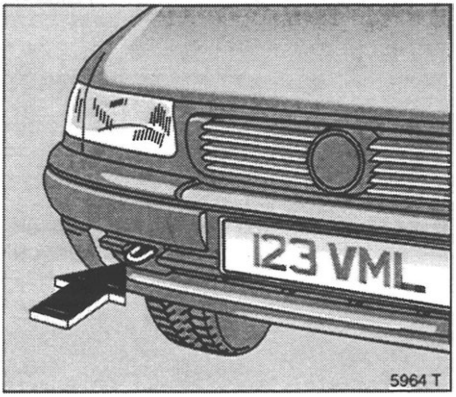
As soon as possible after changing a wheel, you should have the wheel bolts tightened with a torque wrench to 110 Nm and have the new wheel balanced on the car.

Wheel bolts should be tightened evenly to the correct torque in a crisscross pattern. Improperly tightened wheel bolts could eventually allow the wheel to come off while the car is moving!

TOWING A DISABLED CAR

Proper lifting or towing equipment is necessary to prevent damage during any towing operation of the car. State and Local laws must be followed. In an emergency, your car may be towed on all four wheels in the following manner:

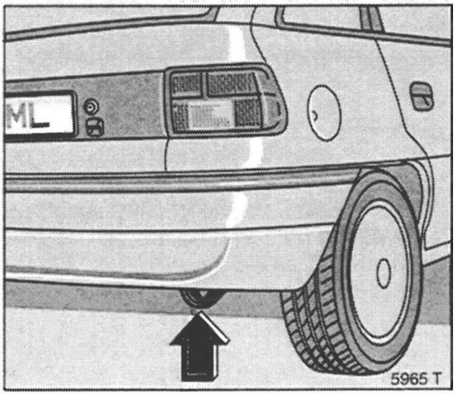
- Attach a tow rope to the eye, illustrated. Do not attach to the bumpers or brackets.



- Place transmission in neutral/N position and release the park brake.
- Switch the ignition to position II (on). This will free the steering lock and allow the correct operation of windscreen wipers, horn and turn signals.
- For the sake of safety and to prevent damage to the car it is advisable to avoid jerky movements and to drive slowly during towing operations.
- Remember that power assist for brakes and power steering will not be available when the engine is off. Therefore, more effort will be required to brake and steer.
- To prevent the entry of exhaust fumes from the towing car into the passenger compartment of your car, close the windows and stop entry of air by moving heating and ventilation controls to “re-circulate” position.
- Cars fitted with automatic transmissions should only be towed facing forwards and must not be towed for more than 100 km or at over 80 km/h.
- If the transmission is defective, or if the above speed or distance is to be exceeded, the front of the car must be raised.
- Only the driver should be in a towed car

Towing another car

Attach a tow rope to the rear towing eye, never to the rear axle. Drive off slowly and avoid jerky movements.



ENGINE OVERHEATING

CAUTION:

Immediate action is required if the engine overheats. This can be indicated by the temperature gauge needle moving vertical to the temperature symbol, by steam escaping from under the bonnet, a loss of power or a loud knocking or pinging noise.

Continued driving EVEN FOR A SHORT TIME could cause a fire, personal injury or car damage.

Pull out of the traffic as soon as possible and stop the car. Leave the engine idling and the park brake applied while you get out and check that the cooling fan is working.

CAUTION:

Do not open the bonnet if you can see or hear steam or coolant escaping from the engine compartment. Wait until no steam or coolant can be seen or heard before opening the bonnet.

If the fan is working and the temperature gauge needle has not returned to its normal position within a few minutes STOP the engine and remove the ignition key.

Look for leaks at the radiator hoses and connections, heater hoses and connections, radiator and water pump.

Take care when checking all these areas as they will probably still be hot.

IF YOU FIND A MAJOR LEAK OR FIND OTHER PROBLEMS THAT MAY HAVE CAUSED THE ENGINE TO OVERHEAT, DO NOT RUN THE ENGINE UNTIL THESE PROBLEMS HAVE BEEN CORRECTED.

If you do not find anything wrong then you should check the engine coolant level in the surge tank (refer page 7-4 for location).

CAUTION:

Do not remove the cooling system cap if the engine and radiator are still hot. Scalding fluid and steam can be blown out under pressure which could cause serious burns.

ENGINE OVERHEATING

When the engine has cooled sufficiently, remove the surge tank cap as follows:

Cover the surge tank cap with a thick cloth, slowly turn anticlockwise and remove.

Top up the surge tank with clean water to the centre weld joint WHEN THE ENGINE IS IDLING. Refer Chapter 7 if unsure of location.

Replace the cap and leave the engine idling for a few minutes.

If, after taking one or more of the above actions, and once the temperature gauge no longer signals an overheat condition you can resume driving at a reduced speed. Return to normal driving after ten minutes if the temperature gauge does not again show an overheat condition.

If overheating occurs again you should have the car attended to, as soon as possible, by a qualified mechanic.

Note that with this type of sealed, pressurised cooling system there should be very little loss of coolant. If the surge tank is low a leak is indicated. Therefore you should see your Holden Dealer as soon as possible to fix the leak.

The engine may temporarily operate at high temperatures during more demanding operating conditions, especially on very hot days. These conditions include:

- climbing a long hill
- stopping immediately after high speed driving
- idling for long periods in traffic
- towing a heavily laden trailer or caravan.

You should avoid operating your car for prolonged periods in any of the above circumstances if the temperature gauge indicates high engine coolant temperature.

Refer Chapter 7, which gives maintenance instructions to help protect your cooling system from overheating.

FLAT BATTERY

CAUTION:

DO NOT attempt to "push start" or "tow start" this car, as it is fitted with a catalytic converter and if un-combusted fuel were to reach the catalytic converter and ignite, the converter could overheat or be destroyed by backfire.

If your car will not start due to a discharged battery, it can often be started by using energy from a battery in another car - a procedure called "jump starting".

However, if after reading the following procedure you are still unsure about "jump starting" we strongly recommend for your safety and that of your car that you leave the starting to a competent mechanic.

Jump starting

CAUTION:

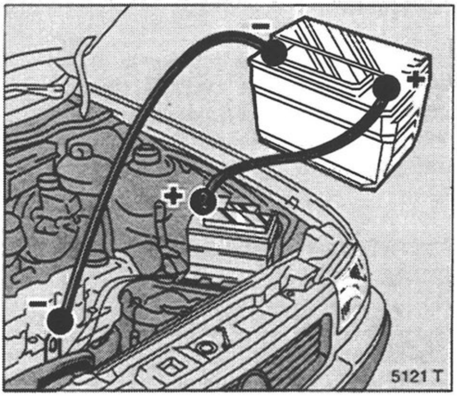
Batteries produce explosive gases, contain corrosive acids and supply levels of electrical current high enough to cause burns. Therefore, to lessen the chance of personal injury when working near a battery:

- Do not expose the battery to open flames or sparks. Battery action generates hydrogen gas which is flammable and explosive.
- Do not smoke near a battery.
- Wear eye protection such as industrial safety glasses and avoid leaning over the battery whenever possible.
- Do not allow battery acid to contact eyes or skin. Flush any contacted area with water immediately. In case of eye contact you should get medical help. Battery acid will also damage paint and fabrics if not washed off immediately.
- Be sure any batteries that have filler caps are properly filled with fluid.
- Remove rings, metal watch bands and other metal jewellery before working around the battery.
- Carefully follow each step in the jump starting procedures.
- Never use a quick charger to start your engine.
- Do not lean over the battery during jump starting.

FLAT BATTERY

- The battery of your car has a negative earth and a 12 volt rating. The battery in the other car (that is being used to jump start the flat battery) must be the same voltage and also have a negative earth. The battery capacity of charged battery must not be substantially lower than that of the discharged battery. So, check the specifications in the other car's owner manual to see if it complies. Serious injury or damage may result if the wrong type of battery is used.
- Position the two cars so that they are NOT touching and apply the park brakes. Automatic transmissions are to be placed in PARK and manual transmissions placed in NEUTRAL. Turn off ignition, all lights and accessories in both cars, except the hazard warning flasher or any lights needed for the work area.

Connect the leads in the order shown in the picture

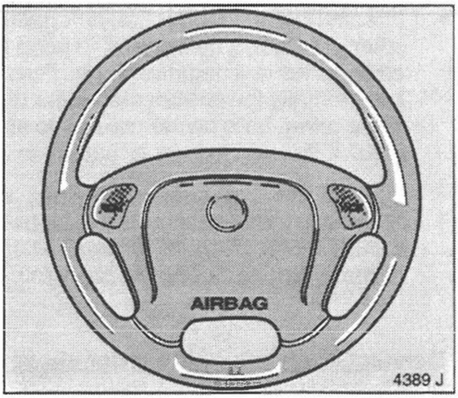


1. Attach one end of the first jumper cable to the positive terminal of the other car's battery (identified by "+" or "P" on the battery case, post or clamp).
2. Connect the other end of the same cable to the positive terminal of your car's battery.
3. Attach one end of the second jumper cable to the negative terminal (identified by "-" or "N" on the battery case, post or clamp).
4. Connect the other end to a solid stationary, metallic point on your car's engine. DO NOT CONNECT DIRECTLY TO NEGATIVE POST OF YOUR CAR'S BATTERY! The connection should be as far away from the discharged battery as possible.

- When making all connections take care that the clamps from one cable do not inadvertently touch the clamps on the other cable. Also, ensure that jumper cables are not on or near pulleys, fans or other points that will move when the engine is started.
- Start the engine in the other car and run the engine at a moderate speed. Then start the engine in your car. Attempts to start the engine with the discharged battery should be made at intervals of one minute and should not last longer than 15 seconds.
- After starting, allow both engines to idle for approx. 3 minutes with the leads still connected.
- Leave the engine running as you remove the jumper cables by reversing the above sequence exactly. While removing each clamp, take care that it does not touch any other metal while the other end remains attached.

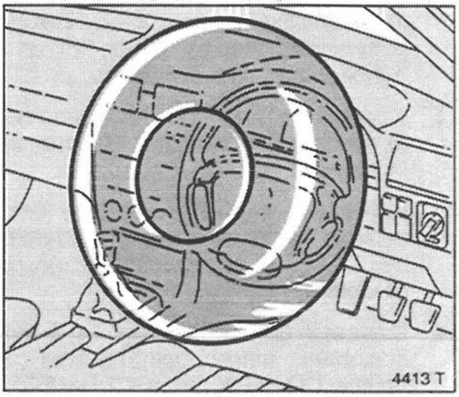
AIR BAGS

The airbag system is identified by the word "Airbag" on the steering wheel. If a passenger airbag is fitted, the word "Airbag" will also be above the glovebox.



If your car is fitted with driver and passenger air bags they will operate as a pair - they are triggered simultaneously.

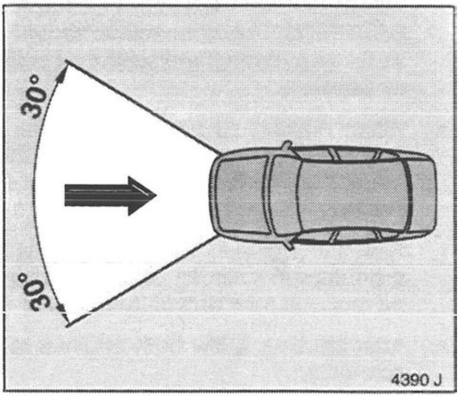
If your car is involved in a severe front end collision, the air bags will inflate, assisting the seat belts to restrain forward body movement.



An operating noise may be heard and a small amount of smoke-like gas will be released. The gas is harmless and does not indicate malfunction or fire.

The air bags will then deflate - the whole process *only taking a moment.*

The air bags assist, but do not replace the seat belts. The air bags are not designed to inflate if the car is hit from the rear or side or the car overturns. *Seat belts (by law) should be worn by all passengers whenever the car is moving.*



Air bags will inflate if the car is struck hard within the shaded section. Air bags will not inflate if the car is struck from the side, rear, or in some rollovers....always wear a seat belt.

Air bags inflate with great force. If you are too close to an inflating air bag it could seriously injure you. Seat belts help keep you in position for air bag inflation in a crash.

The light on the instrument panel will glow for a few seconds when the ignition is switched ON. This is to indicate that the air bags are operational. If the light *does not* show when the ignition is switched to ON, or if it comes on when driving, you should contact your Holden Dealer.

AIR BAGS

After use the whole air bag system will have to be replaced by your Holden Dealer.

The system should also be inspected by a Holden Dealer if the steering wheel or dash board area is scratched, cracked or damaged. Remember that the horn pad must not be covered with adhesive or any other material, as this may hinder air bag operation.

If a passenger's side air bag is fitted, the dash board area must be kept clear with nothing around this area or hanging from the sun visor.

Extensive design and testing has gone into the air bag system. It is extremely reliable and has very little chance of accidental inflation. It should however, be treated with respect. Any careless or unskilled interference with the system could lead to its failure or to accidental inflation. Any work to the electrical system, steering column, dash board area, steering wheel or air bag system should *only* be carried out by an authorised Holden Dealer.

BULL BAR NOTE: Fitting a "bull bar", or making other modifications to the front of the car, may change the impact speed which would normally cause the air bag to inflate, reducing its effectiveness.

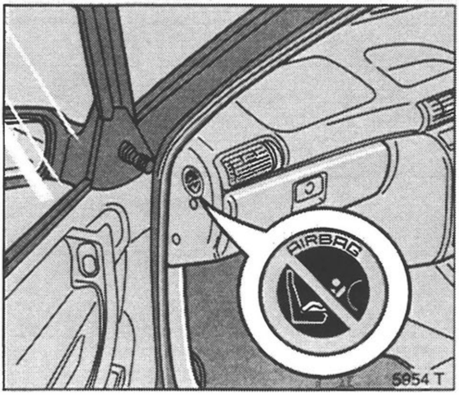
Passenger's side air bag and child restraints

CAUTION:

NEVER install a rear-facing child restraint in the front seat of car with a passenger's side air bag. The child could be seriously injured if the passenger's side air bag inflates, as the back of a rear-facing child restraint would be very close to the inflating air bag.

You may install a forward-facing child restraint in the front seat, but ALWAYS move the passenger seat as far back as it will go.

It is always better to install a child restraint in the rear seat.



Notes

Notes

CHAPTER 7

Weekly checks

Page

7-2 Miscellaneous checks
7-2 Service manuals
7-3 Engine oil level
7-4 Engine coolant level
7-5 Auto transmission fluid level
7-6 Power steering fluid level
7-6 Brake fluid level
7-7 Washer fluid level
7-7 Battery
7-8 Fuses
7-9 Tyres
7-12 Trolley jack locations
7-13 Bulb replacement

MISCELLANEOUS CHECKS

As well as taking your car to be serviced (refer Chapter 12) there are a few simple, weekly checks that the owner (or Nominee) is required to make. These are shown on the following pages.

The following checks should also be regularly done to ensure proper safety and dependability of your car.

CHECK:

- that all exterior lights are working and that their appropriate interior indicators light up when in operation.
- mirrors and glass are clean and not scratched.
- automatic transmission T-bar indicator correctly lines up next to the gear selected.
- the aim of water on the windscreen or tailgate and condition of the wipers.
- demister operates.
- all seat belt condition and operation (give it a sharp tug to make sure that it will 'lock' if necessary) and check that buckles are clean and operating correctly. Remember that seat belts must never be worn twisted.

Service manuals

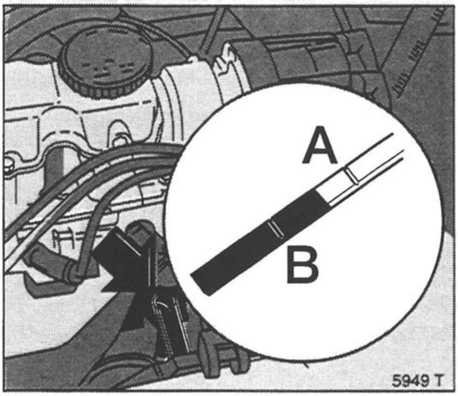
Holden also publishes various service manuals, which are available from your Dealer.

ENGINE OIL LEVEL

It is normal for every engine to consume some oil. For this reason the engine oil level should be checked every 500 km or before starting a long trip.

The oil level must be checked with the car parked on level ground and with the engine (which must be at normal operating temperature) switched off. Wait at least two minutes before checking the level to allow the oil to settle. If the engine is cold the oil may take considerably longer to drain back.

To check the level, remove the oil dipstick, wipe it clean and re-insert it as far as it will go. Pause for a second then withdraw the dipstick and look at the oil level on it.

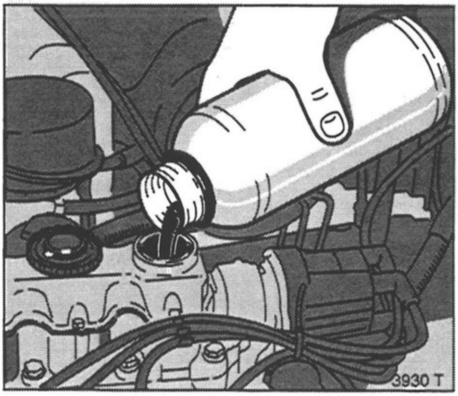


The oil level should be maintained between the two marks (**A** and **B**).

If you need to add oil, use SG grade engine oil 20W/50 (or 15W/40 for prolonged use in snow areas).

To add oil, undo the cap on top of the engine. Add enough oil to bring the oil level to the *top* mark. As a guide, the distance between the marks represents 1 litre of oil.

Wait a few minutes for the oil to settle. Then check the oil level again. If still too low, add more oil. If now correct, replace the oil cap and the dipstick.

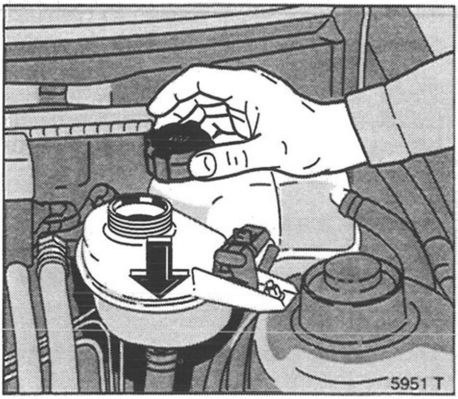


Note that the oil level should not go above the *top* mark on the dipstick.

Oil consumption should not be judged until the car has run several thousand kilometres. It may take this long for oil consumption to stabilize.

NOTE: Non-detergent and other low quality oils are specifically not recommended. The use of break-in oil, tune up compounds, friction reducing compounds and other supplemental additives are not recommended. Their use will not only increase costs, but may be detrimental to the operation of your car.

ENGINE COOLANT LEVEL



The level of coolant should be checked at least weekly. This is simply a matter of looking at the level in the plastic container when the engine is cold.

The level should be slightly above the KALT/ COLD mark when the engine is cold. The level rises when the engine is running and drops again when the engine cools down. If the level falls below the 'cold' mark the coolant should be topped up to a little over the mark.

The LONG LIFE COOLANT in your car conforms to Holden specification number HN 2217.

If topping up, first mix a solution of 50% LONG LIFE COOLANT and 50% water. Failure to use the coolant meeting Holden's specification or maintaining the specified concentration may result in voiding your warranty.

In an emergency, plain water may be used temporarily in the cooling system until the correct Holden LONG LIFE COOLANT is obtained as soon as possible from the nearest Holden Dealer.

It should be noted that the specified long life coolant contains special corrosion inhibitors for the best corrosion protection of your engine and cooling system. This LONG LIFE COOLANT also gives your cooling system greater hot weather protection by increasing the boiling point and in addition provides protection in cold weather conditions down to -37°C, provided the correct concentration is maintained.

If you regularly have to top up the cooling system, you should see your Holden Dealer.

CAUTION:

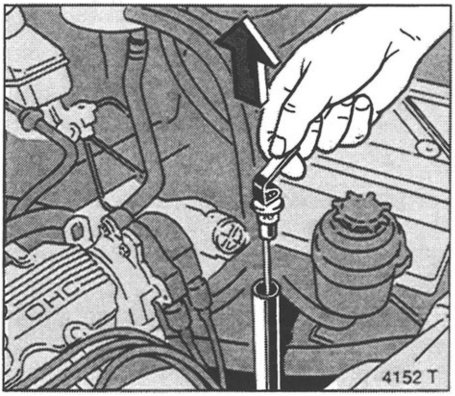
Corrosion inhibitors and antifreeze fluids are poisonous. Use extreme care when handling. If swallowed seek medical attention. Do not remove the cooling system cap if the engine and radiator are still hot. Scalding fluid and steam can be blown out under pressure which could cause serious burns.

Refer Chapter 6 if engine overheats.

AUTOMATIC TRANSMISSION (if fitted) FLUID LEVEL

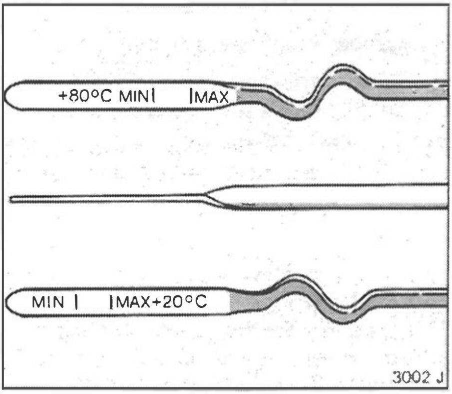
The automatic transmission should be checked weekly by looking at the fluid level on the transmission dipstick.

Dirt in the transmission can cause breakdowns, so be careful when checking or adding fluid. The dipstick has different markings on each side, the +20°C is used for the cold check; the +80°C is used for the hot check.



~ Use the cold side marks when the car has not been driven for a couple of hours and the outside air temperature is below 35°C. If using the cold marks, the check must be completed by the time the engine has been idling for one minute.

~ Use the hot side marks when the car has been driven for at least 20 km.



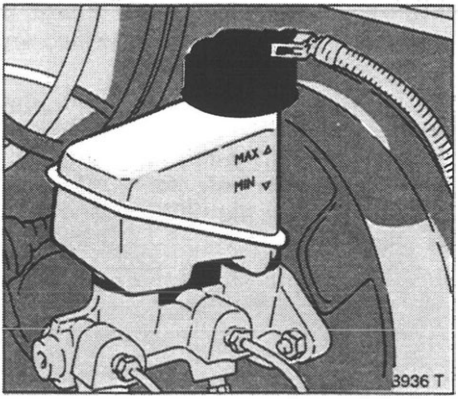
The car must be parked on level ground, the park brake applied and the selector in `P', and the engine idling. Remove the dipstick, wipe it clean with a clean non-fluffy cloth. Re-insert the dipstick as far as it will go and then withdraw the dipstick and look at the fluid level on the `cold' side.

The level should be between the MIN. and MAX. marks. If fluid is required, add DEXRON®11D in the same opening as the dipstick is stored in. Again check the level with the dipstick and add further fluid if necessary. Remember to replace the dipstick.

NOTE: If fluid has to be added often, you should see your Holden Dealer.

BRAKE & POWER STEERING FLUID LEVEL

Brake fluid level



Caution:

Brake fluid is poisonous and will damage the paint finish of your car if spilt.

The brake fluid in the master cylinder should be checked weekly. The master cylinder is located in the engine bay, on the driver's side of the car.

The fluid level, visible in the see through master cylinder, should be maintained between the MIN and MAX level markings (shown in the cutout at the side of the master cylinder).

If the fluid is between these levels do not remove the master cylinder cap. Remember that brake fluid exposed to the atmosphere will quickly absorb moisture, which in turn lowers the boiling point of the fluid as well as increasing risk of corrosion of brake components.

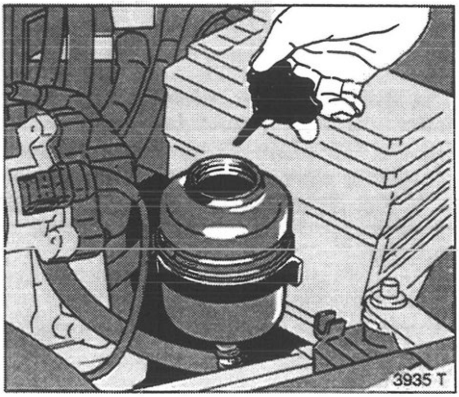
If fluid needs to be added, first clean around the cap. Top up with heavy duty brake fluid which meets S.A.E. Specification J1703, DOT 4.

Remember to secure the cap.

NOTE: Use only new brake fluid. Use of an old, used or inferior brake fluid may endanger the functioning of the brake system.

If the master cylinder requires constant topping up it could indicate that a malfunction exists and you should immediately see your Holden Dealer.

Power steering fluid level



The container for the power steering fluid is located in the engine bay. Check the fluid level when the engine is turned off.

Unscrew and carefully remove the cap on top of the container. The dipstick is attached to the cap.

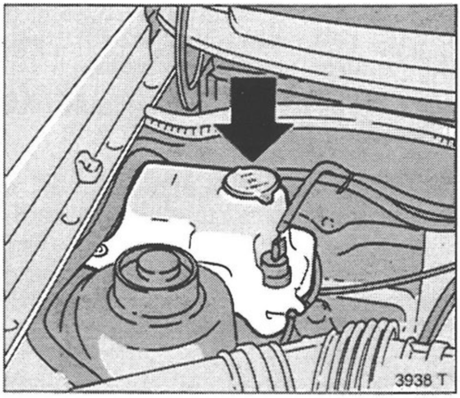
If the car has been driven for a while the fluid level should be at the upper level mark. When the fluid is cold the level should be at the lower mark (but never lower).

If fluid needs to be added, use Dexron®11D.

Do not overfill. Remember to replace the cap tightly. If you often need to add fluid, you should see your Holden Dealer.

WASHER FLUID LEVEL & BATTERY

Washer fluid level



As the washer fluid is constantly used the level should be checked weekly and topped up as required.

The washer container is for both the windscreen and (if fitted) tailgate washers.

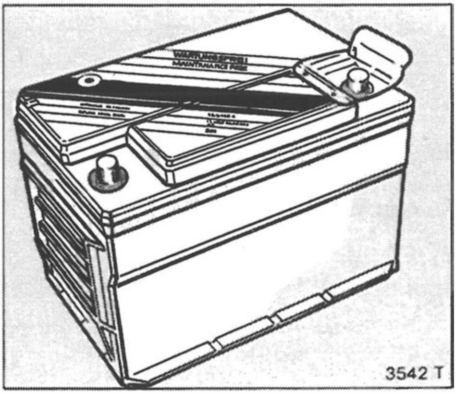
The washer container is located under the bonnet, on the drivers side.

To fill, open the flip top cap.

For a crystal clear windscreen, the correct amount of Optikleen (part no M39826) can be added. Do not use ordinary soap or detergent as these not only froth up but will also damage the wiper rubbers.

Remember to secure the cap after filling.

Battery



Your car is fitted with a maintenance free battery.

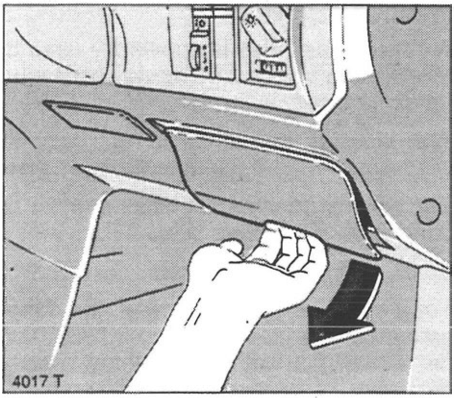
Note: You should never disconnect the battery when the engine is running.

If removing the battery for recharging, first disconnect the negative cable, then the positive cable. Never charge the battery while still connected to the car. When reconnecting, first connect the positive cable to the positive post of the battery, and then the negative cable to the negative post of the battery.

FUSES

The fuses are located under a cover inside the car, to the right of the steering column. Pull the cover up from the bottom.

Fuse symbols are shown on the inside of the cover.



Fuses used are of the blade type with the amperage values moulded into the head.

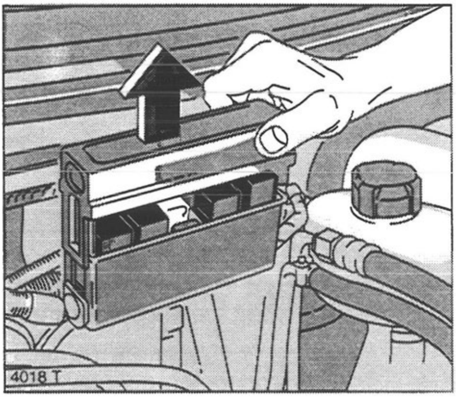
Before removing a suspect fuse to determine whether or not a fuse has 'blown', turn off the related switch and the ignition.

Examine the element in the fuse. If the element has broken, replace the fuse with one of the same value.

If after replacing a burnt-out fuse and the new fuse also burns out, an overload is indicated. The cause of the fault should be located and rectified, preferably by a Holden Dealer.

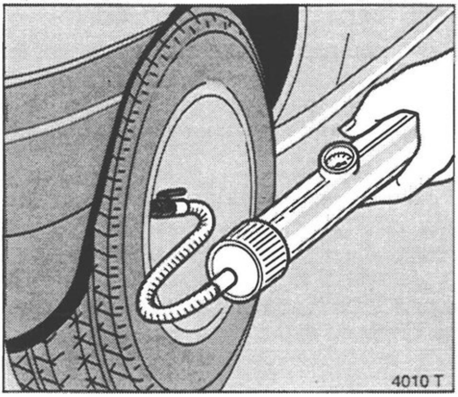
CAUTION:

When replacing a fuse be sure to use a fuse of the specified amperage. Never install a wire or similar device to replace a fuse, as it could damage electrical components and may cause a fire hazard to your car.



Relays are located in the fuse box. Further relays (and additional fuses) are located in the engine bay.

TYRES



Tyre air pressure

Checking the air pressure of your tyres (including the spare) ensures your safety, as well as reducing fuel consumption and increasing the life of your tyres.

To make sure your car will handle at its best - check the pressures weekly. For constant long distance or rough road travelling, daily checking is recommended.

For correct pressure for your tyres, refer to the tyre placard, on the inside of the fuel flap.

Tyre inflation pressure increases when the tyres have been driven more than 2 km. The pressure should be checked when the tyres are cold (stationary for over 3 hours). If they must be checked when warm/hot, allow pressure to read 10% above that recommended.

Always use a tyre pressure gauge to check the tyres - simply looking at the tyres is not sufficient.

If the pressure is too low, this can result in considerable tyre warm-up and internal damage, leading to tread separation and even to tyre blowout at high speeds.

Remember to put back any valve dust caps or extensions, if so equipped. This stops dirt and moisture from fouling the valves.

When checking the tyre air pressure, take a look at the condition of the tyre tread and inspect for stones or abnormal wear.

Alignment and balance

Improper wheel alignment can cause the tyres to wear faster and unevenly. It can also cause the car to “pull” to the left or right.

Out-of-balance wheels and tyres can cause annoying vibration and uneven tyre wear such as cupping and flat spots.

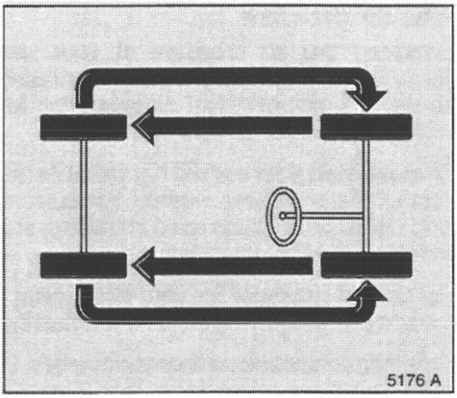
If you have any reason to suspect that either of the above problems exists then have a wheel alignment and balance check done by your Holden Dealer.

TYRES cont.

Tyre inspection and rotation

Front and rear tyres perform different jobs and can wear differently depending on the types of roads driven, your driving habits, wheel alignment and balance, tyre pressures etc.

Tyre condition will be checked for you when you take your car to be serviced by your Holden Dealer, who will be able to diagnose any unusual signs of wear. If the tyres are rotated it is recommended that the balance be checked at the same time.



Heavy treads

Caution must be exercised when using tyres with heavy treads, including tyres designed to gain traction in bad weather conditions. At sustained high speeds, this type of tyre will run at higher temperatures than standard tyres and consequently should only be operated within the limits recommended by the manufacturer.

Any doubts concerning the fitness of the tyres on your car for the purpose you require should be referred to your Holden Dealer.

Wheel replacement

When replacing wheels for any reason, ensure that the new wheels are equivalent in diameter, rim width, offset and mounting configuration to those originally installed in your car.

NOTE: Replacing your factory fitted wheels and tyres with non specified wheels and tyres may affect your warranty as well as your motor car insurance policy.

Tyre traction

CAUTION:

A decrease in driving, cornering and braking traction occurs when water, snow, ice, gravel or other material is on the road surface. Driving practises and speed should be adjusted to the road conditions.

When driving on wet or slushy roads, it is possible for a wedge of water to build up between the tyre and road surface. This phenomenon, known as hydroplaning, may cause partial or complete loss of traction, which adversely affects control and stopping ability. To reduce the possibility of traction loss, the following precautions should be observed.

1. Reduce speeds during rainstorms, when roads are slushy or if the road has standing water or puddles.
2. Replace tyres when tread wear indicators are visible.
3. Check that tyres are properly inflated.

TYRES

Tyre replacement and repair

CAUTION:

Do not mix different tyre construction types, such as radial and cross ply, on your car except in emergencies, because your car's handling could be affected and may result in loss of control.

When replacing tyres you should use the same size, load rating and construction type as the original tyres on your car. Refer to tyre placard on your car for tyre size and load rating. Using a different size or type of tyre may affect such things as ride, handling, speedometer/odometer calibration, ground clearance and tyre clearance to the body or chassis.

Tyres with a higher speed rating and/or maximum load rating in excess of that listed are also acceptable as replacements provided they are fitted to a suitable rim size.

New tyres should be fitted in pairs to the front. If replacing only one tyre, it should be paired on the same axle with the least worn of the other three.

You should replace your tyres when:

1. The tyres are worn to the point where the tread indicators appear, or the cord or fabric is showing.
2. The tread or side wall is cut, split, or cracked deep enough to expose the cord or fabric.
3. The tyre has a bump or bulge in it, indicating some kind of internal damage.
4. The tyre has a puncture, cut or other damage which can't be repaired because of the size or location of the damage.

If in doubt about the extent of damage to the tyre, have it removed from the wheel and examined by a tyre specialist.

If a pressure loss occurs while driving, do not attempt to drive on the deflated tyre more than is necessary to stop safely. Driving even a short distance on a deflated tyre can damage it and the wheel beyond repair.

When an object which has punctured the tyre is removed, repairs are to be made in accordance with the tyre manufacturer's recommendations.

CAUTION:

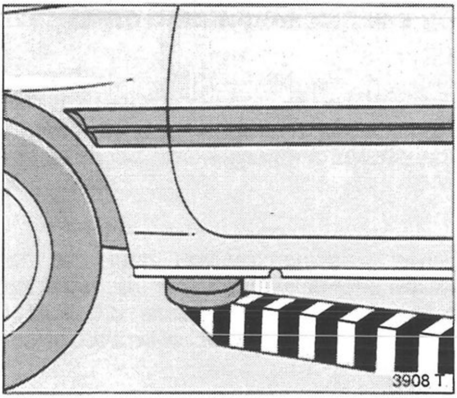
Tyres which have been repaired or retreaded will not be able to be operated safely at high speeds. Therefore, their use is not recommended.

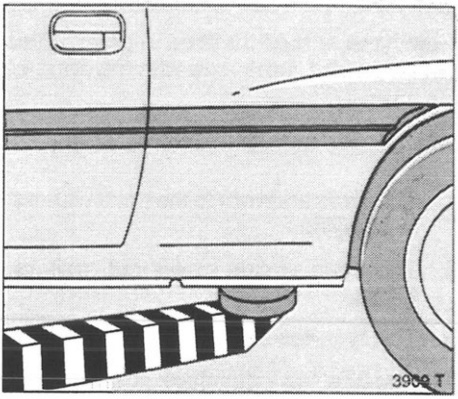
TROLLEY JACK / HOIST LOCATIONS

You should always use the jack locations shown in Chapter 6 when using the original jack supplied with your car. This jack has been designed to correctly and safely lift your car, provided the cautions in Chapter 6 are observed.

However, if using a trolley jack or hoist to raise the car, it is important that the jack be positioned as shown.

When using lifting or jacking equipment with metal jaws, use a rubber pad to avoid damage to the car.





BULB REPLACEMENT

When replacing a bulb, turn off the related switch.

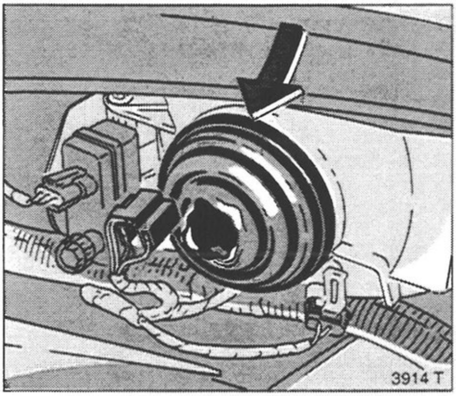
Do not touch bulbs with bare hands. Greasy fingers will cause stains, which evaporate, and result in a dull light. Grease spots on Halogen bulbs will, within a short time lead to bulb failures. Inadvertently stained bulbs may be cleaned with tissue paper, or a clean, non-fuzzy cloth, using alcohol or white spirits.

When replacing bulbs do not exceed the wattage given on the bulb base.

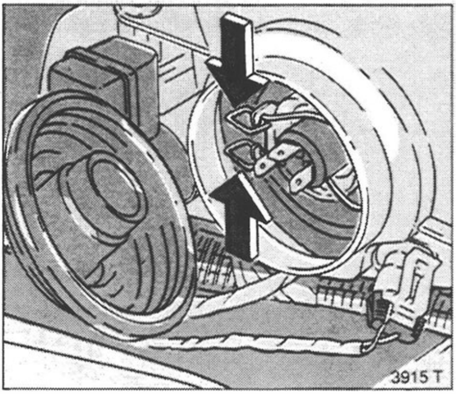
Detailed procedures for headlight aiming are given in the relevant service manual for your car. However, because headlight aiming is a safety item it is recommended that you have it carried out by your Holden Dealer.

Headlights

1. Open bonnet and engage support.
2. Remove plug socket and wire from bulb base. Remove headlight protective cover.
3. Disengage spring wire clip from retaining lugs and swivel it to the side.



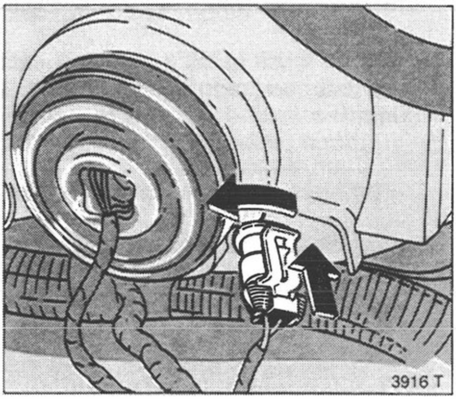
4. Remove bulb and holder from reflecto housing.
5. When installing new bulb, engage th lugs of bulb holder in recesses on th reflector and refit springwire clip.
6. Refit protective cover and plug socket



BULB REPLACEMENT

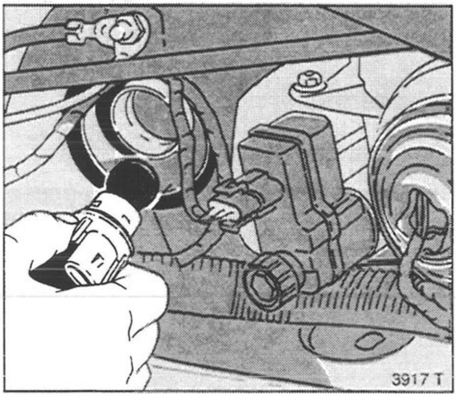
Parking lights

1. Open bonnet and engage support.
2. Press bulb holder towards reflector, disengage by turning anticlockwise and remove.
3. Remove bulb from holder.
4. Insert new bulb.



Front turn signal lights

1. Open bonnet and engage support.
2. Disengage bulb holder from tum signal light reflector by turning.
3. Remove bulb from holder.
4. Insert new bulb and engage holder again by turning



Front fog lights (if fitted), high mounted stop light and instrument lighting

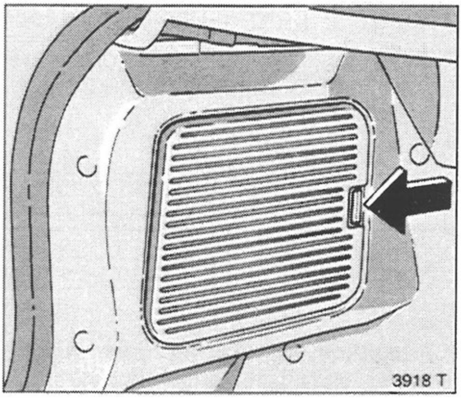
The work should preferably be carried out by a Holden Dealer.

BULB REPLACEMENT

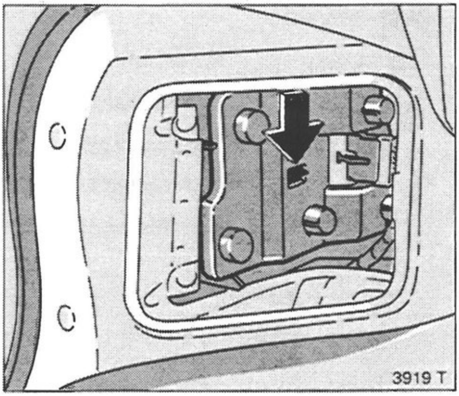
Tail, brake, rear turn signal, reverse lights, rear fog lights (if fitted)

Hatch model:

1. Press retaining lug in luggage/load compartment in direction of arrow and open flap (when closing, make sure that all catches on flap engage).



2. Press retaining lug in the centre of bulb mounting downwards and remove bulb mounting.



Top bulb sequence:

Outside:	Turn signal light
Inside:	Reverse light

Bottom bulb sequence:

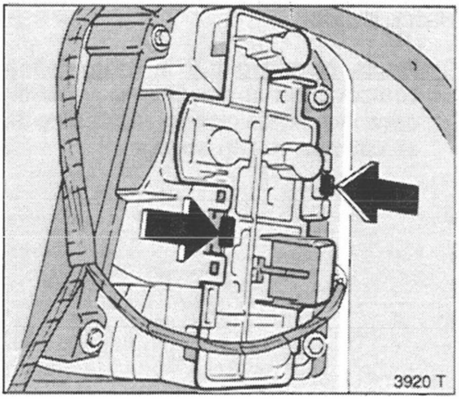
Outside:	Brake lamp
Centre:	Tail lamp
Inside:	Rear fog light (if fitted)

BULB REPLACEMENT cont.

Tail, brake, rear turn signal, reverse lights, rear fog lights (if fitted)

Sedan:

1. In luggage compartment, disengage fasteners on side trim by turning and opening trim panel.



2. Press retaining lugs on outer edges of bulb mounting towards each other and remove bulb mounting.

Bulb sequence:

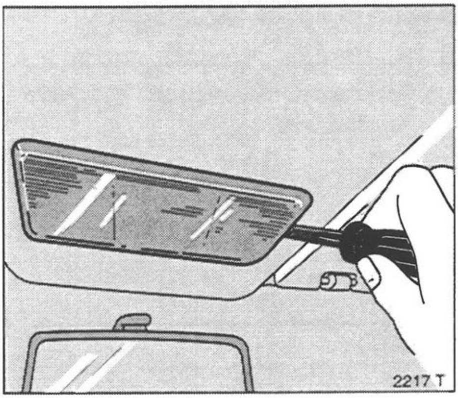
Top:	Brake light
Centre, outside:	Turn signal light
inside:	Reverse light
Bottom:	Tail/ fog light, if fitted, (Two filament bulb)

3. Remove defective bulb from holder.
4. Insert new bulb and engage bulb mounting again (make sure that all locking elements engage).
5. Close flap or fasten side trim panel in position.

BULB REPLACEMENT

Interior light, glovebox light, luggage compartment light,

Before removing the interior light, or the rear reading lamps, close the doors so that the light is not live. Likewise, when removing the luggage compartment light, make sure that the contact switch is kept depressed so that the light is not live.

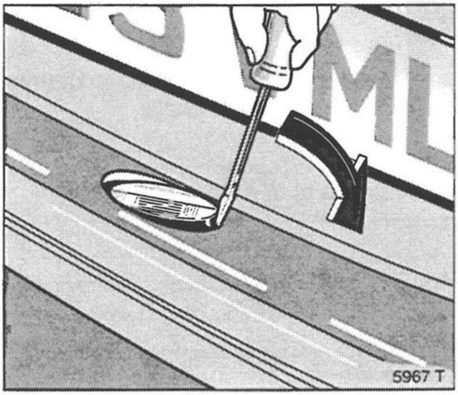

2217 T

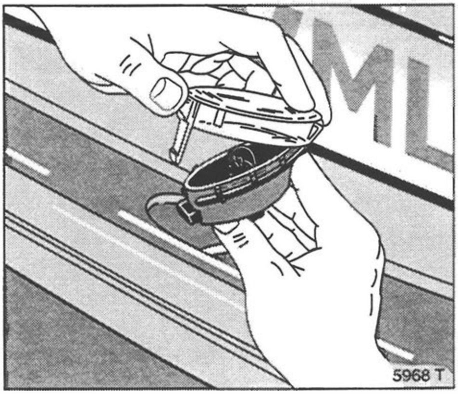
1. Prise lens out of recess,

   If your car is fitted with anti-theft system, only lever out the appropriate lens of the interior light.
2. Press bulb slightly towards spring clip and remove.
3. Insert new bulb.

Hatch number plate light

1. Insert a screwdriver vertically on the right side of the lamp insert, prise towards the right and disengage the spring. Raise light insert on right and lift out.


5967 T

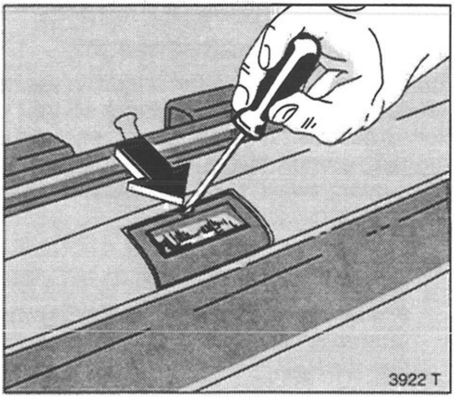

5968 T

2. Depress protruding tongue and open light housing.
3. Remove bulb from holder.
4. Insert new bulb

BULB REPLACEMENT

Sedan number plate light

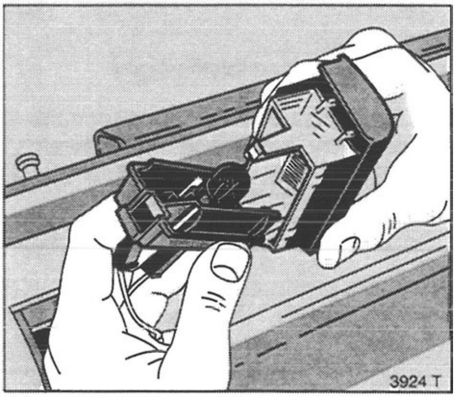
1. Open boot, insert screwdriver as illustrated, disengage light and lift housing out.



2. Depress protruding tongue and remove bulb base from housing.

3. Remove bulb from holder.

4. Insert new bulb



Notes

CHAPTER 8

Specifications

Page

8-2 Engine specifications
8-3 Transmission specifications
8-3 Dimensions
8-3 Battery
8-4 Identifications plates

SPECIFICATIONS

Engine type		**C16SE: single overhead cam**	**C18SEL: double overhead cam, 16 valve**	**X20XEV: double overhead cam, 16 valve**
No of cylinders		4		
Piston displacement		1598cc	1799cc	1998cc
Power kW @ rpm		74 @ 5,800	85 @ 5,400	100 @ 5,600
Torque Nm @ rpm		135 @ 3,400	168 @ 4,000	188 @ 3,200
Oil specification		Service classification SG or SH. Viscosity grade 20W/50 for normal use, Holden's Motor Oil part no M40106 (5 litres) is recommended. For prolonged use in snow areas, the use of 15W/40 is recommended.		
Refill oil capacity (including filter)		3.5 litres approx.	4.0 litres approx.	
Fuel tank capacity		52 litres		
Coolant capacity	**Auto**	6.3 litres	6.6 litres	
	Manual	5.6 litres	6.9 liters	6.7 litres
Coolant spec.		50% water and 50% long life coolant conforming to Holden's specification number HN 2217		

GENERAL SPECIFICATIONS

Transmission

	5 speed manual	4 speed automatic
Capacity	1.9 litres	7 litres

Dimensions (mm)

	HATCH	SEDAN
Overall length	4,051	4,239
Overall width	1,678	
Overall height (at curb weight)	1,406	1,410
Wheel base	2,517	

Battery

Volts	12
Amp. hour	55

IDENTIFICATION LABELS

Emission label

This label shows the relevant tune-up information required to maintain minimum exhaust emissions and is located inside the engine bay, on the passenger's side strut tower.

Engine number

Individual identification numbers are stamped onto the engine, near the engine oil dipstick.

Safety compliance plate

The SAFETY COMPLIANCE plate is located inside the engine bay, on the passenger's side strut tower.

Tyre placard

The TYRE PLACARD is located on the inside of the fuel filler flap.

Holden identification Plate

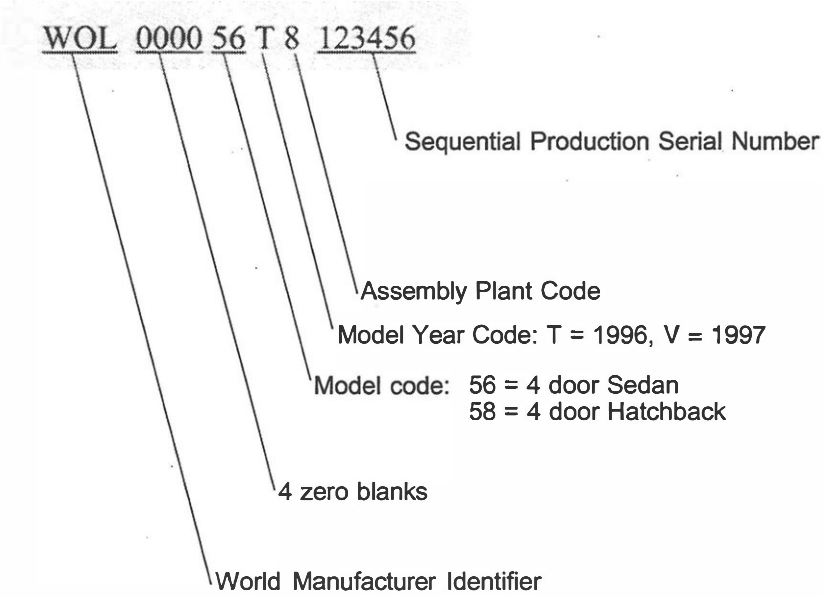
The Holden Identification Plate is located on the passenger's side of the radiator support panel.

The Holden number is used for warranty identification, Roadside assist identification etc.

IDENTIFICATION LABELS

Vehicle identification number (I.S.O.V.I.N.)

The individual I.S.O.V.I.N. Number (example below) appears on the Safety Compliance Plate. This number is used for identification of parts.


WOL 0000 56 T 8 123456
Sequential Production Serial Number
Assembly Plant Code
Model Year Code: T = 1996, V = 1997
Model code: 56 = 4 door Sedan
58 = 4 door Hatchback
4 zero blanks
World Manufacturer Identifier

CHAPTER 9

After Sales

Page

9-2 New Vehicle Warranty
9-4 Parts and Accessories Warranty
9-5 Warranty questions & answers
9-8 HoldenWise
9-10 Roadside service
9-12 Authorised Holden Dealers
9-21 Customer assistance

Note: Dealership names and addresses may change after the printing of this Handbook. The list contains both Authorised Holden Dealers and Authorised Holden Service Operations.

NEW VEHICLE WARRANTY CERTIFICATE

General Motors - Holden's Automotive Ltd. A.C.N. 006 893 232, hereinafter Holden, warrants that it will make good without charge, any defect which appears in the vehicle identified in the vehicle identification certificate, found on the inside front cover of this handbook, by the Dealer (or as otherwise decided by Holden) making good the defect by repair or, at the option of Holden, by replacement, provided that:

1. the defect has been notified to an authorised Holden Dealer or Service Dealer:

(a) before the vehicle has travelled a distance of 100,000 km or,

(b) within 36 months of the date of delivery of the vehicle to the first retail purchaser (or in the case of a demonstrator vehicle within 36 months of the date when it was first placed into service by the Dealer)

whichever comes first, AND

2. the vehicle has been returned to an authorised Holden Dealer or Service Dealer

AND

3. the Dealer has determined that the defect complained of is one of workmanship and is not caused by:

(a) misuse or abuse of the vehicle such as by racing, rallying, overloading, etc., or by neglect

(b) operation of the vehicle after it is known to be defective

(c) accident or deliberate act

(d) atmospheric fallout or flood, hail, salt, etc.

(e) failure to carry out proper maintenance service

(f) use of incorrect types and grades of fuel, oil or lubricants

(g) alteration or modification of the vehicle by any party not authorised by Holden

(h) the fitting of parts or accessories not marketed by Holden

(i) any work carried out on the vehicle by someone other than an authorised Holden Dealer or Service Dealer,

NEW VEHICLE WARRANTY CERTIFICATE cont.

Excluded from this Warranty are:

defects in tyres (these being warranted by their manufacturers), batteries (which are covered for 12 months) and services such as engine tuning, brake adjustment, replacement of air/oil/fuel filters, wiper rubbers etc., which are required as part of normal vehicle maintenance.

This Warranty applies only to vehicles operated in Australia and is given to the person who is entitled to possession of the vehicle whether as owner, lessee or otherwise and is given in addition to all rights conferred by law on that person.

Owners of vehicles operated outside Australia should consult their local dealer regarding the warranty applicable to their vehicles.

PARTS AND ACCESSORIES WARRANTY

Holden warrants in respect of Holden Parts and Accessories ("Parts" and "Accessories") that it will make good by repair or at its option by replacement any defect occurring in any such Parts and Accessories within 12 months from the date of acquisition or in the case of a Part or Accessory installed in a vehicle by a Holden Dealer or Service Dealer, within 24 months or before such vehicle has travelled a distance of 50,000 km from the date of installation, whichever first occurs.

Excluded from this warranty are maintenance items such as filters, spark plugs, wiper blades, etc. which require replacement as part of normal vehicle maintenance.

PARTS AND ACCESSORIES WARRANTY EXPLANATION

i ACCESSORIES - NEW VEHICLE

Accessories installed by a Holden Dealer or authorised Service Dealer to the new vehicle at the time of purchase are covered by the Holden New Vehicle warranty of 24 months or 50,000 km (whichever occurs first) from date of fitment.

ii PARTS AND ACCESSORIES
- INSTALLED DURING NEW VEHICLE WARRANTY PERIOD

Parts and/or Accessories installed by the Dealer or authorised Service Dealer during the new vehicle warranty period are covered by the unexpired portion of the new vehicle warranty. After expiry of the new vehicle warranty, the Parts and Accessories warranty will apply until the expiration of 24 months/50,000 km (whichever occurs first) from date of fitment.

iii PARTS AND ACCESSORIES
- INSTALLED AFTER EXPIRY OF NEW VEHICLE WARRANTY

Parts and/or Accessories installed by the Dealer or Service Dealer after expiration of the new vehicle warranty are covered by the Parts and Accessories warranty of 24 months or 50,000 km (whichever occurs first) from date of fitment.

iv PARTS AND ACCESSORIES
- PURCHASED AT RETAIL OR TRADE

Parts and/or Accessories purchased at trade or retail and installed by other than the Dealer or Service Dealer are warranted for 12 months from date of purchase. In these instances it is necessary to preserve proof of sale records to support warranty claims.

v PARTS AND ACCESSORIES WARRANTY EXCLUSIONS

Defects in tyres, these being warranted by their manufacturers, batteries which are covered for 12 months and maintenance service items, such as spark plugs, oil/air/fuel filters, coolant/inhibitor, wiper rubbers, brake pads, linings and discs, clutch linings, refrigerant, drive belts, distributor ignition points, bulbs and fuses, which are warranted against manufacturing defect existing at time of installation.

Where this Handbook specifies a schedule for replacement of parts, such parts are covered by parts warranty for the extent for the specified maintenance service interval.

WARRANTY QUESTIONS

This section is designed to assist you in understanding the Holden Warranty provided with your new vehicle.

The following are some of the most frequently asked questions, for which detailed answers have been provided.

Q 1. How do I go about obtaining Holden Warranty Service?

It is the responsibility of the Selling Dealer to provide Holden Warranty service, therefore you should take your vehicle to the Selling Dealer whenever Holden Warranty service is needed. However, if this is not possible, you may go to any other Authorised Holden Dealer. The details recorded inside the front cover of this handbook will be required by the Dealer.

Q 2. What should I do if my vehicle becomes unsafe or inoperative as a result of a defect which is covered by the Holden New Vehicle Warranty?

You should contact the nearest Authorised Holden Dealer or Holden Customer Assistance Service (refer last page of this chapter) as soon as possible, and arrange for that Dealer to carry out the required Holden Warranty Service.

Q 3. What should I do if, in an emergency, Holden Warranty service is required and an Authorised Holden Dealer is not available to provide such service at the time?

If, in an emergency, a repair, replacement or adjustment (covered by the Holden New Vehicle Warranty) is required to enable your vehicle to be operated safely and it is not practical for you to go to an Authorised Holden Dealer, the service (to the extent that it is necessary to enable your vehicle to be operated safely) may be performed by any other qualified mechanic or repairer. A claim for the reasonable cost may be made through the Authorised Holden Dealer who would normally provide you with Holden Warranty Service. You must also take your vehicle to the Authorised Holden Dealer for inspection of the service and/or completion of any required Holden Warranty Service, as soon as possible.

Note: During normal business hours you should seek authorisation from your nearest Authorised Holden Dealer or Holden Customer Assistance Service, prior to repairs being commenced.

Q 4. Are damage or injury, loss of time, inconvenience, commercial or other direct or indirect loss covered by the Holden Warranty?

No, these items are not covered. Holden warranty only covers the repair, replacement or adjustment of those parts of your vehicle which are found to be defective in materials or workmanship. No other types of claim for compensation of any kind, even if the same resulted from a consequence of a defect in materials or workmanship in your vehicle, will be recognised under the Holden New Vehicle Warranty.

You may have rights under the law to claim compensation outside of the Holden New Vehicle Warranty, but any claim based on those rights should be separately pursued.

WARRANTY QUESTIONS

Q 5. Will I have to pay for maintenance costs during the Warranty Period?

Maintenance costs are not covered by the Holden New Vehicle Warranty. The Maintenance Schedules in this handbook specify the *minimum* maintenance required for your vehicle operating under normal conditions.

The Maintenance items (except where they are required as a result of defects in materials or workmanship) for which you will have to pay for include:

- Engine tune-up, including spark plugs replacement.
- Replacement of all filters, engine and other belts, hoses, wiper blades, clutch linings.
- Cleaning or flushing of fuel, coolant, brake, engine, transmission, differential, power steering etc., after 1,500 km.
- Carbon and sludge removal.
- Maintenance servicing of emission control system devices.
- Adding to (or replacing) lubricants.
- Adding to (or replacing) air conditioning refrigerant, after 1,500 km.
- Any necessary adjustments to drive belts, transmissions, clutch, park brake etc.
- Wheel balancing - after 5,000 km.
- Wheel alignment.
- De-dusting or de-glazing of brake linings or pads - after 1,500 km.
- Brake lining wear or damage.
- Brake disc pad or disc wear.
- Battery recharging.
- Paint, bright metal finish and trim, due to normal deterioration.
- Body panel adjustment - after 1,500 km.
- Door, or bonnet lock adjustments.
- Glass or channel adjustments - after 1,500 km.
- Body rattle, squeaks and general tightening of bolts, fasteners and fittings - after 1,500 km.
- Chipped glass or breakage.
- Torn or damaged floor mats or carpets.
- Normal wear and tear to trim components.

Q 6. Are my tyres covered by the Holden New Vehicle Warranty?

No. The tyres fitted to your vehicle are covered by a separate warranty provided by the tyre manufacturer. Any Authorised Holden Dealer will assist you by discussing any queries which you might have with respect to the tyre manufacturer's warranty with the tyre manufacturer's representative.

WARRANTY QUESTIONS

Q 7. Are Holden parts and accessories covered by warranties?

If you buy a Holden part or accessory from an Authorised Holden Dealer it will be warranted by that Dealer, under the Holden parts and accessories Warranty, against defects in materials or workmanship for 12 months, from the date of purchase. In the case of a Holden part or accessory which has been installed in a vehicle by a Holden Dealer, it will be warranted for 24 months or 50,000 km (whichever occurs first) from the date of installation.

Defects in tyres (these being warranted by their manufacturers), batteries (which are covered for 12 months) and maintenance items such as filters, spark plugs, wiper blades and brake pads/linings require replacement as part of normal maintenance. Such replacements are not the subject of this warranty.

Q 8. Will I have to pay for any costs or expenses in connection with the provision of Holden Warranty service?

All parts and labour used in carrying out Holden Warranty Service at the premises of the Servicing Dealer are free of charge. Whenever Holden Warranty service is to be carried out by the Servicing Dealer it is your responsibility to deliver your vehicle to the Servicing Dealer's premises.

If, as a result of a defect which is covered by the Holden New Vehicle Warranty, your vehicle cannot be driven safely and you arrange for the nearest Authorised Holden Dealer to carry out the required Holden Warranty Service, Holden will accept reasonable towing costs to move your vehicle to the nearest Holden Dealer's premises. Before employing a towing company, contact the nearest Holden Dealer and/or Holden Customer Assistance Service (refer last page of this chapter) to obtain guidance.

Q 9. Would my vehicle's engine benefit from fuel additives, oil additives or coolant additives not marketed by Holden ?

The use of break-in oil, tune-up compounds, friction-reducing compounds and other supplemental additives is not recommended; their use will not only increase operating costs, but may also be detrimental to the operation of your vehicle.

Only the fluids and lubricants referred to in this handbook should be used.

HOLDENWISE

Holden, a lot more than just a vehicle

As you'll soon discover, your new Holden is a lot more than just a vehicle..... because every Holden comes with one very special feature, HoldenWise.

HoldenWise was created to offer Holden owners the best Australia wide customer care system possible. To do this we've drawn on all the technical resources and service skills of Holden. However, the key to our service is and always will be, people, with over 5,000 Holden service and parts specialists spread across the country. Thanks to them, we can offer HoldenWise Customer care at participating Holden Dealers with complete confidence.

Holden Specialists

HoldenWise technicians have been specially trained by the factory and have the experience in service and parts skills necessary to work on your vehicle. As you can imagine Holdens today are a lot more sophisticated than they used to be, which means specialist service is essential.

Knowing Holdens so well, our technicians know exactly how long each service takes, which is why Holden dealers can offer fixed price servicing.

HoldenWise Fixed Price Servicing

HoldenWise has eliminated one of the big worries about vehicle services, not knowing what the bill will be. Every participating Dealer service centre offers fixed price servicing. You need only ask and you'll be given a quote on how much the job will cost before it's started. So there are no nasty surprises when paying the bill.

Of course, if during the service, a problem is discovered, you'll be telephoned immediately before any more work is done.

You may be comforted to know that all participating Dealer work is covered by a workmanship warranty.

HoldenWise Workmanship Warranty

All services and repairs are covered by a 6 month/10,000 km Dealer warranty on workmanship. If a fault arises during that period, due to the service, your Holden Dealer will fix it. But workmanship isn't the only thing that is guaranteed.

HOLDENWISE

Holden Parts Warranty

The parts used in HoldenWise services are manufactured and tested to the same high standards as the originals, so Holden quality parts carry the same 24 month/50,000 km warranty when fitted by the Dealer. Naturally the warranty does not apply to normal maintenance parts like oil filters and spark plugs.

The HoldenWise Network

Most HoldenWise Dealer service and parts centres are computer linked through to the factory, which means you'll never have to wait an eternity for the right parts to be found.

What's more, with around 350 Dealers nationwide, you'll never be far from the same high standard of service.

Holden Accessories

Holden accessories are designed and approved as an integral part of your vehicle so you know they will fit and function precisely. When installed by the Holden Dealer to your new vehicle, Holden accessories are covered by the Holden warranty of 24 months or 50,000 km for your added protection.

Customer Assistance

Finally, we suggest you read the last page of this chapter for information on Holden's Customer Assistance Service.

UNAUTHORISED STATEMENTS IN RELATION TO HOLDEN PRODUCTS

No Holden Dealer or other person is authorised or permitted to give or make any statement assertion or undertaking in relation to the quality, performance, characteristics, descriptions or fitness for any purpose of any Holden product or in connection with the supply of any Holden product, which is at variance with any written statement assertion or undertaking on any of these subjects given or made by Holden in its published sales literature, and the Company does not accept any such unauthorised action.

HOLDENWISE Roadside service

3 YEAR
24 HOUR ROADSIDE SERVICE

Our commitment to your satisfaction

HoldenWise Roadside Service is part of the unequalled commitment of Holden's to provide total motoring satisfaction.

From the moment delivery is made, our aim is to provide the finest possible ownership experience, from design through manufacturing to servicing, and now beyond to the open road.

HoldenWise Roadside Service is your key to worry free motoring - one that covers you from your driveway to the open road, Australia-wide.

We hope the need never arises, but if it does, we'll be there to help through HoldenWise Roadside Service.

How does Holdenwise Roadside service work?

When you decide to buy a new Holden, you will have made a wise purchase decision and you will become a member of an exclusive club of Holden owners, covered by a 24 hour a day, 365 day a year, professional service for 3 years.

HoldenWise Roadside Service is provided by General Motors-Holden's Automotive Ltd., and delivered by the collective resources of the Australian Automobile Clubs and Associations (the constituents of the Australian Automobile Association) the 'AAA'.

Which cars are covered by the service?

As of 1st November 1993 all new Holden passenger and light commercial vehicles are covered for 36 months service.

HoldenWise Roadside Service is extended to private and business vehicles, taxis, rental companies, all government and fleet operators.

What will Holdenwise roadside service do for me?

HoldenWise Roadside Service is designed to get you mobile after your vehicle has become disabled on a constructed road that is trafficable to normal two wheel drive vehicles.

Your vehicle must be disabled due to (non-collision related) mechanical failure/driver fault i.e. flat tyre, flat battery, locked out of the vehicle, or have simply run out of petrol.

Where permanent repairs are either not possible or practicable, temporary repairs will be carried out, or the vehicle towed to a Holden Dealer or approved repairer.

When do the benefits begin?

Cover begins the moment a Holden vehicle is purchased. An Interim Registration card entitles you to immediately receive all the benefits of HoldenWise Roadside Service.

Where can I get HoldenWise roadside service?

The professional service of HoldenWise Roadside Service is available to you at home, or at the roadside, anywhere in Australia, should you need it.

HOLDENWISE Roadside service

What happens if my car needs major repairs?

In the case of a breakdown where the vehicle cannot be made driveable or where temporary repairs may void the warranty, HoldenWise Roadside Service will provide towing to the nearest Holden Dealer, or if not geographically practicable, to the local 'AAA' constituent service facility. It is the responsibility of the owner to seek Holden's approval before any repairs are undertaken by a non Holden Dealership. This action will ensure the warranty remains valid.

During an after-hours' breakdown and where the metropolitan Holden Dealer or 'AAA' constituent's approved repairer is not open, the vehicle may be towed to any other location nominated by the driver not exceeding 20 kilometres from the point of breakdown.

Is there any membership or joining fee?

No, you will not be required to pay any fees. Every new Holden passenger vehicle and light commercial vehicle owner is eligible for HoldenWise Roadside Service for 36months.

What will HoldenWise roadside service cost me?

Materials, fuel and spare parts supplied during the service must be paid for at the time of the service. The service personnel attending will issue a receipt for these expenses. Reimbursement of expenses covered by Holden's warranty can be claimed by contacting the local Holden Dealer.

What happens if I sell my car?

Holdenwise Roadside Service stays with the vehicle, so if you sell your vehicle during the 36 month period, it is still eligible for the service. The new owner simply registers for the service by using the change of ownership form supplied in the member's kit.

ROADSIDE 'ULTRA' - PRESTIGE CARS

Some luxury models receive the additional cover of 'Roadside Ultra'. This cover provides the new owner with all the benefits of HoldenWise Roadside Service along with some very valuable extras, including accommodation, alternative transportation, rental car and Australia-wide vehicle recovery.

HSV - Holden Special Vehicles

Purchasers of Holden Special Vehicles automatically qualify for the coveted HSV Gold Lion package. This package provides the Gold Lion Member with all the benefits of HoldenWise Roadside Service and where applicable, the enhancement package 'Roadside Ultra'.

How do I call for service?

Simply call **1800 817 100**, the HoldenWise toll free number from anywhere in Australia.

The HoldenWise Roadside Service Kit contains full details of the service and any limitations that may apply. In the meantime further information is available from the toll free Holden Customer Assistance Service line, on **1800 033 349**.

N.S.W. HOLDEN DEALERS

N.S.W. Metropolitan

ARNCLIFFE	Suttons Motors Arncliffe P/L - 93 Princes Highway
ASHFIELD	Muirs Holden - 252 Parramatta Road
BALGOWLAH	James Langfield Holden - 164 Condamine Street
BANKSTOWN	Princeton Holden - 466 Chapel Road
BLACKTOWN	West City Holden - 120~128 Sunnyholt Road
CABRAMATTA	John Abrahams Holden - 266~284 Hume Highway
CAMPBELLTOWN	Paul Wakeling Holden - Cnr Blaxland & Campbelltown Rds
CASTLE HILL	Windsor Road Holden - Cnr Victoria Ave/Windsor Rd
CHATSWOOD	Sundell Holden - Cnr Smith & Gibbes Street
CHULLORA	Suttons Motors (Chullora) P/L - Cnr Hume Hwy/Waterloo Rd
DEE WHY	Peninsula Holden - Cnr May & Mooramba Roads
GORDON	Sundell Holden - Cnr Pacific Hwy/McIntyre St
HOMEBUSH	Suttons Motors Homebush P/L - 112 Parramatta Road
LAKEMBA	Glen Fulton Holden Lakemba - 817 Canterbury Road
LIVERPOOL	A.C. McGrath & Co Pty Ltd - 411~419 Hume Highway
NEWPORT	Newport Car Care Centre - 340 Barrenjoey Road
PARRAMATTA	Boyded Holden Parramatta - 65 Church Street
PENNANT HILLS	Barry Smith Holden - 351~355 Pennant Hills Road
PENRITH	John Young Holden - 39~47 Henry Street
ROCKDALE	Peter Terry Holden - 571 Princes Hwy
ROSEBERY	Suttons City Holden - Link Road
RYDE	Hunter Holden - 603~605 Victoria Road
SPRINGWOOD	Springwood Holden - 15 Ferguson Road
ST LEONARDS	New Hunter Holden - 4 Herbert Street
ST. MARY'S	John Young Holden - Cnr Glossop & Harris Streets
SUTHERLAND	Greg Ball Holden - 499~505 Princes Highway
WAITARA	Suttons Motors Waitara P/L - 90 Pacific Hwy
WINDSOR	Hawkesbury Valley Holden - 18 Macquarie Street

N.S.W. Country

ALBURY	McRae White Holden - 647~657 Dean Street
ARMIDALE	New State Motors - 103 Rusden Street
BALLINA	Quayside Motors - Pacific Highway
BARHAM	Hall's Motors Pty Ltd - 44 Noorong Street
BATEMAN'S BAY	Surfair Holden - 30-32 Orient Street
BATHURST	Bathurst Motors Pty Ltd - 54 Durham Street
BEGA	South Coast Holden - Cnr Upper and Gibbs Sts
BELMONT	Challenge Holden - 444 Pacific Highway
BLAYNEY	Alan May Auto. Services - 98 Adelaide Street
BOMBALA	Delcott Engineering Pty Ltd - Maybe Street
BOOROWA	Boowowa Auto Repairs - 40 Marsden Street
BOURKE	Bourke Smash Repairs - 12 Richard Street
BREWARRINA	Lukas Holden - Bathurst Street
BROKEN HILL	Donlee Motors Pty Ltd - Cnr Galena & Rakow Streets
CAMDEN	Paul Wakeling Pty Ltd - 15 Cawdor Road
CANOWINDRA	Canowindra Motors - Gaskill Street
CARDIFF	Brian Kelly Holden - 35~39 MacQuarie Road
CASINO	Casino Holden - 142 Barker Street
CESSNOCK	Geoff Boyd Holden - 173~175 Wollombi Road

N.S.W. HOLDEN DEALERS cont.

COFF'S HARBOUR	Geoff King Holden - Cnr Pacific Hwy and Thompson Road
COOLAMON	Coolamon Motors - Cowabbie Street
COOMA	Summit Holden - 66~70 Sharp Street
COONABARABRAN	Allan Cooper Holden - John Street
COONAMBLE	Moody's Motors - 37 Aberford Street
COOTAMUNDRA	Jenkins Garage - 111 Wallendoon Street
COWRA	Waugoola Motors Pty Ltd - Kendal Street
CROOKWELL	Crookwell Autos - 114 Goulburn Street
DENILIQUIN	Burchfield Bros & Co - 112~114 End Street
DORRIGO	Phil Noble Motors - 46~48 Hickory Street
DUBBO	John Kierath - 54 Bourke Street
DUNGOG	Turner Holden - 248 Dowling Street
EDEN	Ron Doyle - 113 Imlay Street
FINLEY	Riverina Garage Finley - 104 Murray Street
FORBES	Paddison & Co - Cnr Rankin St & Court Lane
GILGANDRA	Gilgandra Holden - 3 Morris Street
GLEN INNES	Glen Severn Holden - 167 Grey Street
GLOUCESTER	Grahame's Garage Pty Ltd - 1 Park Street
GOSFORD	Noble Holden - Pacific Highway
GOULBURN	Geissler Motors - 279~298 Auburn Street
GRAFTON	Ken Casson Holden - 37~39 Turf Street
GRENFELL	Terry Carroll Motors Pty Ltd - 40 Alexandra Street
GRIFFITH	Leo Franco Holden - 164~166 Yambil Street
GUNNEDAH	Namoi Valley Motors - 48 Barber Street
GUYRA	Burgess Garage Pty Ltd - 131~143 Bradley Street
HARDEN	Ginty & O'Leary - Cnr Station & Albury Streets
HAY	Royce Curtis Motors - 168 Lachlan Street
HOLBROOK	Lieschke Motors Pty Ltd - Albury Street
INVERELL	Gaukroger Sales Pty Ltd - Vivian Street
JERILDERIE	Jerilderie Motors - Jerilderie Street
KANDOS	Chrisfield Holden - 11 Angus Street
KATOOMBA	Katoomba Holden - 136 Great Western Highway
KEMPSEY	Thoroughgood Motors - 118~132 Belgrave Street
KIAMA	Glen Fulton Holden - 35~41 Collins Street
KYOGLE	O & H Holden - 128~134 Summerland Way
LEETON	John Ryan Holden - 47 Pine Street
LISMORE	John Chant Motors Pty Ltd - 21~27 Carrington Street
LITHGOW	Lithgow City Holden - 255 Main Street
MACKSVILLE	Eastland Auto Centre - 18~22 Cooper Street
MACLEAN	O'Halloran Motors - 175 River Street
MAITLAND	Heritage Holden - 557~567 High Street
MOREE	Keith Haddad Holden - Cnr Boston & Heber Streets
MORUYA	Surfair Holden - 88 Vulcan Street
MOSS VALE	Vagg & Partners Holden - 160~162 Argyle Street
MULLUMBIMBY	Tony Carsburg Holden - 2 Argyle Street
MUDGEE	Ross Granata Motors - 47~55 Market Street
MURWILLUMBAH	Tweed Motors Murwillumbah - 29 Prospero Street
MUSWELLBROOK	Upper Hunter Motors Pty Ltd - 116 Bridge Street
NAMBUCCA HEADS	Nambucca Holden - Mann Street
NARRABRI	Allan Cooper Holden - 181 Maitland Street

N.S.W., A.C.T. & TAS. HOLDEN DEALERS

NARROMINE	L.E. Stanley Pty Ltd - Dandaloo Street
NEWCASTLE	Newcastle City Holden - 745 Hunter Street
NOWRA	Glendon Motors Holden - 301~313 Princes Highway
ORANGE	Canobolas Holden - 348 Summer Street
PARKES	Go Motors of Parkes - Cnr Mitchell & Clarinda Sts
PEAK HILL	S.Leary & Sons Pty Ltd - Mingelo Street
PORT MACQUARIE	Todd Holden - 16~20 Clarence Street
QUIRINDI	Browning Motors - 82 Henry Street
SCONE	Upper Hunter Motors (Scone) - 100 Liverpool Street
SINGLETON	Lancaster Holden - 80 John Street
TAMWORTH	Kensell's Holden - Cnr Bourke St & Kable Ave
TAREE	Hardes Auto House - Beeton Parade
TEMORA	Rod Lovering Holden - 2 Stockinbingal Road
TENTERFIELD	Sexton & Green (Sales & Service) P/L - 148 Rouse Street
TUNCURRY	Great Lakes Holden - 144 Manning Street
TUMUT	Nancarrow Holden - 35 Fitzroy Street
TWEED HEADS	Tweed Motors Pty Ltd - 75~79 Pacific Highway
ULLADULLA	Alan May Holden - 150 Princes Highway
WAGGA WAGGA	Wagga Motors Pty Ltd - 32 Dobney Avenue
WALCHA	Bowden's Garage Pty Ltd - Derby Street
WALGETT	Walgett Garage Pty Ltd - 81 Wee Waa Street
WALLA WALLA	D.E. Lieschke & Son Pty Ltd - Commercial Street
WARIALDA	Roger Moore - Hope Street
WARILLA	Wilson's Warilla Pty Ltd - 29 Shellharbour Road
WARREN	Fuller Bros - Dubbo Street
WEE WAA	Allan Cooper Holden - Rose Street
WELLINGTON	Gersbach's Garage Pty Ltd - 92 Lee Street
WEST WYALONG	West Wyalong Motors - 183 Main Street
WOLLONGONG	Dwyers City Holden - 31~33 Crown Street
WYONG	Barry Robertson Holden - 172 Pacific Highway
YASS	Bill Nesbitt Holden - 221 Comur Street
YOUNG	Harden & Geelan Holden - 48 Boorowa Street

A.C.T.

BELCONNEN	Gerald Slaven Holden - Josephson Street
BRADDON	Beazley & Bruce Holden - 44 Mort Street
PHILLIP	Commonwealth Motors Pty Ltd - 158 Melrose Drive

Tas.

BURNIE	Motors Burnie - Marine Terrace
DEVONPORT	Motors Devonport - Victoria Parade
HOBART	Motors Pty Ltd - 179 MacQuarie Street
KING ISLAND	King Island Motors Pty Ltd - Netherby Road, Currie
LAUNCESTON	Motors Launceston - 93~95 Elizabeth Street
SMITHTON	Motors Smithton - Cnr Nelson & Gibson Street
ULVERSTONE	Motors Ulverston - 97~101 Reibey Street

VIC. HOLDEN DEALERS

Vic. Metropolitan

BERWICK	Barry Bourke Holden - 755 Princes Highway
BUNDOORA	Watson Holden - 413 Grimshaw Street
BURWOOD	Penfold Holden - 63 Burwood Highway
CAULFIELD	Booran Holden - 1049 Glenhuntly Road
CHELSEA	Harrison Holden - 370 Nepean Highway
CHELTENHAM	Booran Holden - 1212 Nepean Highway
DANDENONG	Booran Holden Dandenong- 25 Lonsdale Street
DONCASTER	Doncaster Holden - 636~640 Doncaster Road
ELSTERNWICK	Reg Hunt Holden - 77 Nepean Highway
ESSENDON	Preston Motors (Essendon) P/L - 205~211 Keilor Road
FAWKNER	Mantello Holden - 1263 Sydney Road
FERNTREE GULLY	Neilson Holden F.T.G. - 980 Burwood Highway
FOOTSCRAY	Alan Mance Holden - 435 Barkly Street
FRANKSTON	Noel Gould Holden - 140 Dandenong Road
GEELONG	R & B Smith Holden - 510 Moorabool Street
GEELONG	Winter & Taylor (Sales) P/L - 23 Cavendish Street
GLEN WAVERLEY	Geoff Brady Holden - 565~577 Springvale Road
HASTINGS	Westernport Holden - 2147 Flinders Road
LILYDALE	Noel Dight Holden - 344 Main Street
MORNINGTON	John Collins Holden - 976 Nepean Highway
OAKLEIGH	Garry & Warren Smith - 1575 Dandenong Road
PRESTON	Ralph D'Silva Holden - 573~603 High Street
RINGWOOD	Patterson Cheney Holden - 45~57 Maroondah Highway
SOUTH MELBOURNE	Patterson Cheney Holden - 168 Sturt Street
SOUTH YARRA	Penfold Holden - 681 Chapel Street
SUNSHINE	Kevin Dennis Holden - 272 Ballarat Road
WERRIBEE	Ballan Holden - 56 Princes Highway
WEST MELBOURNE	Reg Hunt Holden - 577 King Street

Vic. Country

ALEXANDRA	GK & JH Radford - 79 Greints Street
ARARAT	David Reid Motors - High Street
BAIRNSDALE	The Big Garage - 199 Main Street
BALLARAT	Peter Amor Motors - 209~211 Gillies Street
BENALLA	Arnott's Motors - 88~90 Bridge Street
BENDIGO	Ron Poyser Holden - Cnr High & Myrtle Streets
BIRCHIP	R.L. & C.J. Bales - 38 Cumming Avenue
BOORT	Jaron Motors - 55 Godfrey Street
CAMPERDOWN	Camperdown Auto Parts - 96 Manifold Street
CASTERTON	Coxons Holden - 139 Henty Street
CHARLTON	K.V. Charlton - 70 High Street
COBRAM	Neville Mustica Motors - Murray Valley Hwy
COHUNA	Hare Motors Holden - 105~107 King George Street
COLAC	Parker Bros. Motor Co - 224 Murray Street
DAYLESFORD	K.R. Little - Vincent Street
DIMBOOLA	Westerfield Motors Pty Ltd - 64 Lloyd Street
DONALD	O.A. Shilton & Sons Pty Ltd - 5 Wood Street

VIC. HOLDEN DEALERS cont.

ECHUCA	Echuca Motors - 1 Nothern Highway
EUROA	Croxford Holden - 41 Clifton Street
FOSTER	Ray Dower Motors - 78 Main Street
HAMILTON	Peter Sandow Motors Pty Ltd - 261 Gray Street
HOPETOUN	Hopetoun Motors - 78 Lascelles Street
HORSHAM	Ivan Morrow Motors Pty Ltd - 22 O'Callaghans Street
KANIVA	Kaniva Motors - 82 Commercial Street
KOOWEERUP	G & J Light Mechanical repairs P/L - Station Road
KORUMBURRA	Peter Dunlevie Holden - 42 Commercial Street
KUNUNURRA	Elgee Holden - 231 Bloodwood Drive
KYABRAM	D'Alberto Holden - 60 McEwen Road
KYNETON	Mollison Motors Pty Ltd - 167 Mollison Street
LEONGATHA	Gleeson Holden - 37~43 Bair Street
MAFFRA	Maffra Holden - Johnson Street
MANSFIELD	Martin's Garage - 52~54 Chenery Street
MARYBOROUGH	Graham Jacka Holden - 35 Nolan Street
MILDURA	Stuart & Harrison (Sales) Pty Ltd - 24~32 Deakin Avenue
MORTLAKE	W. Christian (Mortlake) Pty Ltd - 107 Dunlop Street
MURRAYVILLE	Peers Motors - McKenzie Street
NATHALIA	BHB Motors - 6 Blake Street
NHILL	Ivan Morrow Motors Pty Ltd - 71~73 Nelson Street
NULLAWIL	Nullawil Motors & General Engineers - Calder Highway
ORBOST	Merlin Motors - Stanley Street
PORTLAND	Reynolds Holden - Henty Highway
QUAMBATOOK	Quambatook Auto Services - 32 Gutherie Street
ROCHESTER	Bruce Hocking Motors Pty Ltd - 71 Moore Street
ROBINVALE	Stuart & Harrison (Sales) Pty Ltd - cnr Herbert & George Sts
RUTHERGLEN	Jasper Bros Pty Ltd - 62 Main Street
SALE	Keith Boyd Holden - 273 York Street
SEALAKE	Paddy Smith Holden - Calder Highway
SEYMOUR	Neil Beer Holden - 49 Emily Street
SHEPPARTON	Parker Bros. Auto Co. - Benalla Road
STAWELL	Tonkin Motors - 71~73 Main Road
SWAN HILL	Swan Hill Holden - 94~102 Campbell Street
TALLANGATTA	Crispin Motors - 21 Towong Street
TIMBOON	Timboon Motors - Bailey Street
TRARALGON	Colin Watson Holden - Princes Highway
UNDERBOOL	A.J. Gloster & Sons - Cotter Street
WANGARATTA	Alan Capp (New Cars) Pty Ltd - Tone Road
WARRACKNABEAL	Amor Motors Aubrey Truck Sales - 33 Woolcock Street
WARRAGUL	Vin Rowe Holden - 3 Endeavour Street
WARRNAMBOOL	Callaghan Motors Pty Ltd - 133~137 Fairy Street
WONTHAGGI	J.P. Holden - 2 Murray Street
YARRAM	John Palmer Holden - 150 Commercial Road
YARRAWONGA	Pigdons Pty Ltd - Belmore Street

QLD. HOLDEN DEALERS

Qld. Metropolitan

ALBION	Bill Harrison Car Sales - Frodsham Street & Crosby Road
ASPLEY	Zupps Aspley Pty Ltd - 1454 Gympie Road
CAPALABA	Oldfield Holden - 103 Redland Bay Road
INDOOROOPILLY	Westpoint Holden - 440 Moggill Road
IPSWICH	Ross Llewellyn Holden - 246 Brisbane Road
MOOROOKA	John Sivyer Holden - 1060 Ipswich Road
MT. GRAVATT	Zupps Motors Pty Ltd - 1310 Logan Road
NEWSTEAD	Eagers Retail Pty Ltd - 95 Breakfast Creek Road
PETRIE	Petrie Holden - 1059 Gympie Road
REDCLIFFE	Village Holden - 425 Elizabeth Avenue
SPRINGWOOD	Motorama Holden - 3455 Pacific Highway
WINDSOR	Leach Holden - 143 Newmarket Road
WOOLLOONGABBA	Armstrong Holden - 73 Ipswich Road
WYNNUM	Doug Barton Holden - 200 Tingal Road

Qld. Country

ATHERTON	Redding Motors Pty Ltd - 2 Cook Street
AYR	Honeycombes Sales & Service - 213~217 Queen Street
BEAUDESERT	Lawson Holden - 57 Brisbane Street
BOWEN	McDermott Holden - 98 Herbert Street
BUNDABERG	Ross Gray Holden - Takalvan Street
CABOOLTURE	Beecham Holden - Bribie Island Road
CAIRNS	Ireland Holden - 227~233 Mulgrave Road
CALOUNDRA	Caloundra City Holden - Caloundra Road
CHARLEVILLE	Alan Dobbin Holden - 129 Alfred Street
CHARTERS TOWERS	Peters Holden - 57 Mosman Street
CHINCHILLA	Ainsworth Motors & Machinery Pty Ltd - 55 Chinchilla Street
CLONCURRY	Cloncurry Motors - 59 Scarr Street
CROWS NEST	Dennis Nissen Motors - 14 William Street
DALBY	Johnson's Holden - 36 Drayton Street
EMERALD	Orion Agriculture Supplies Pty Ltd - Clermont Street
GATTON	Gatton Auto Centre - 67 Railway Street
GLADSTONE	Andersons Auto City - 56 Yarroon Street
GYMPIE	Madills - 35 Mellor Street
INGHAM	Devietti Holden - 99 Lannercost Street
INNISFAIL	I.C. Taylor Pty Ltd - 117 Edith Street
JULIA CREEK	Julia Creek Motors Pty Ltd - Burke Street
KILCOY	Hobart's Garage - 58 Mary Street
KINGAROY	John Dundas Pty Ltd - 38 King Street
LAIDLEY	Buhse's Garage Pty Ltd - 5 Spicer Street
LONGREACH	Longreach Motors - 33 Swan Street
MACKAY	Pioneer Holden - Cnr Gordon & Wellington Streets
MAROOCHYDORE	Sunco Holden - Wises Road
MARYBOROUGH	Whitaker Holden - 109~111 March Street
MOUNT ISA	Barkly Motors Pty Ltd - Marian Street
MURGON	Clifton Motors - McAllister Street
NAMBOUR	Kallenbach Motors - 139 Howard Street

Qld. & N.T. HOLDEN DEALERS

NANANGO	Nanango Motors Pty Ltd - 72~74 Drayton Street
NOOSAVILLE	Madill's Noosa - Cnr Weyba Road and Mary Street
PROSERPINE	Crossley Car Sales Whitsunday Pty Ltd - 162~164 Main Street
QUILPIE	Quality Motors - Boonkai Street
ROCKHAMPTON	Lawrence's - 327 Richardson Road
ROMA	Maranoa Multi Agencies - Bowen Street
SOUTHPORT	Lockhart Holden - Cnr Nerang Road & Olsen Avenue
SPRINGSURE	Springsure Motors - Eclipse Street
ST. GEORGE	Halpin Motors - 39~41 Grey Street
STANTHORPE	Central Motors - 42 Maryland Street
TOOWOOMBA	Toowoomba Holden - Cnr James & Hume Streets
TOWNSVILLE	Tony Ireland Holden - 87~91 Charters Towers Road
TULLY	Island Coast Holden - 12 Richardson Street
WARWICK	Deighton Motors Pty Ltd - Grafton Street

N.T.

ALICE SPRINGS	Kittle Holden - Cnr Wills & Railway Terrace
DARWIN	Kerry Holden - 21~25 Stuart Highway
KATHERINE	Master Motors - 3 Second Street

S.A. HOLDEN DEALERS

S.A. Metropolitan

ADELAIDE	City Holden - 223 Grenfell Street
ELIZABETH	Peter Page Holden - Elizabeth Way
MALVERN	Claridge Holden - 361~367 Unley Road
PORT ADELAIDE	Smiths of Port Adelaide - 271 Commercial Road
REYNELLA	Southgate Holden - 49~59 Main South Road
SOMERTON PARK	Hamilton Holden - 278~288 Brighton Road
THEBARTON	Metro Holden - 1 Port Road
VALLEY VIEW	Plaza Holden - 817~839 North East Road

S.A. Country

BALAKLAVA	Balaklava Motors - 4 Wallace Street
BERRI	Rosenthal Bros Pty Ltd - Vaughan Terrace
CEDUNA	Beck Motors Pty Ltd - Poynton Street
CLARE	Brian Holmes Holden - 7 Old North Road
CLEVE	Herbert Motors Pty Ltd - Rudall Road
CUMMINS	Trigg & Wedd - 3 Umlauf Street
CRYSTAL BROOK	Crouch Rural Pty. Ltd - 26 Brandis Street
GAWLER	Steinbomer Holden - Cnr Murray & Bridge Sts
KADINA	J.H. Rosewame Pty Ltd - Graves Street
KEITH	Farmers Centre - McBain Street
KINGSCOTE	Roberts Motors - Telegraph Road
KINGSTON	Lecomu's Service Garage - Agnes Street
LOXTON	Flight Motors Pty Ltd - Bookpurnong Terrace
MAITLAND	Maitland Motors Pty Ltd - 58 Robert Street
MALLALA	Cumow's Garage Pty Ltd - Balaklava Road
MENINGIE	Peter Hood Holden - Cnr Princes Highway & Coonalpyn Road
MILLICENT	Dennis Cowling Holden - 98 George Street
MT. BARKER	Gilbert Motors - 57 Adelaide Road
MT. GAMBIER	O.G. Roberts & Co - Jubilee Highway West
MURRAY BRIDGE	Dutton Motors Pty Ltd - 7 Adelaide Road
NARACOORTE	Kingcraig Motors Pty Ltd - 158~164 Smith Street
OLYMPIC DAM	Lavrick Engineering - Olympic Way
PORT AUGUSTA	Ken Feltus Holden - 38 Stirling Road
PORT LINCOLN	City Motors - King Street
PORT PIRIE	Spencer Holden - 50 Ellen Street
RENMARK	Rosenthal Motors Pty Ltd - Ral Ral Avenue
STRATHALBYN	Gilbert Holden Strathalbyn - High Street
TANUNDA	Hage & Co Pty Ltd - 50 Murray Street
VICTOR HARBOR	Southern Motors Holden - 5 Victoria Street
WAIKERIE	Riverside Holden - 6 Crush Terrace
WHYALLA	Ken Feltus Holden Whyalla - 74 Essington Lewis Avenue
YANKALILLA	Martin Motors Pty Ltd - Main Street
YORKETOWN	Southway Holden - 7 Minalaton Road

W.A. HOLDEN DEALERS

W.A. Metropolitan

CANNINGTON	Brian Gardner Holden - 1308~1324 Albany Hwy
FREMANTLE	Shacks Holden - 64 Queen Victoria Street
GOSNELLS	Lance Gibbons Holden - 2325 Albany Highway
MANDURAH	Mandurah Holden - 283 Pinjarra Rd
MELVILLE	Melville Motors Pty Ltd - 532~540 Canning Highway
MIDLAND	Goldy Holden - 161 Great Eastern Highway
MORLEY	Metro Motors - 212 Walter Road
NAVAL BASE	Shacks Cockburn - 15 Rockingham Road
OSBORNE PARK	North City Holden - Cnr Scarborough Beach Rd & Harborne St
PERTH	City Motors - 505 Newcastle Street
VICTORIA PARK	Youngs Holden - 529 Albany Highway
WANNEROO	Phoenix Holden - 5 Berriman Drive

W.A. Country

ALBANY	Manley Stanwell Holden - 92~98 Earl Street
BRIDGETOWN	Kordics Bridgetown - Hampton Street
BROOKTON	Coote Motors - Robinson Road
BROOME	Norwest Holden - McPherson Street
BUNBURY	Bunbury Holden - 3 Sandridge Road
BUSSELTON	Fennessy Holden - 2~4 Bussell Hwy
CARNAMAH	T & H Walton Stores Pty Ltd - Robertson Street
CARNARVON	North West Autos - 175 Robinson Street
COLLIE	Station Motors - 102 Throssell Street
CORRIGIN	Farmpower - Kunjin Road
CRANBROOK	Cranbrook Motors - 11~13 Gathorne Street
DALWALLINU	Reid & Inglis - Johnson Street
ESPERANCE	Dempster Holden - Norseman Road
GERALDTON	Youngs Motors - Cathedral Avenue
GNOWANGERUP	G.S. Hendry & Co Pty Ltd - Yougenup Street
HARVEY	Stockman Holden - 111 Uduc Road
KALGOORLIE	Kyle Motors - 114 Boulder Road
KARRATHA	Intown Autos - 1 Harwood Way
KATANNING	Edwards Holden - 159 Clive Street
KELLERBERRIN	Dowding Motors - 1 Mitchell Street
MANJIMUP	Manjimup Automotive Services - Pritchard Street
MERREDIN	Carson's of Merredin - 112 Barrack Street
MOORA	Frank Lewis Holden - Gardiner Street
NAREMBEEN	Aquip Machinery - 20 Churchill Avenue
NARROGIN	Marley White & Co - Federal Street
NORTHAM	Withnell Motors - 58 Fitzgerald Street
WAGIN	Marley White & Co - Tudor Street
WONGAN HILLS	Agro Machinery Pty Ltd - Fenton Street
WYALKATCHEM	Agro Machinery - Railway Terrace

CUSTOMER ASSISTANCE

We want you to be happy with your new vehicle, together with the people you deal with while you have the vehicle.

Normally, any problems with the sales, operation or servicing of your vehicle will be handled by your Dealer's Sales and Service Department.

We realize however, that, with the best intentions, misunderstandings do occur sometimes.

☞ Therefore, we suggest you discuss any concern with one of the Dealer's management people. If you haven't received satisfaction from the Sales Manager or Service Manager - go to the General Manager or to the Dealer himself.

By now you should have satisfaction. If not, the Holden Customer Assistance office is at your disposal.

☎ The Holden Customer Assistance representatives can be telephoned from anywhere within Australia for only the cost of a local call. The Melbourne area number is 9 646 5466. Outside the Melbourne Metropolitan area, the number is 1800 03 3349.

If your concern relates to parts/accessories and you have made contact with the Dealer or Distributor without satisfaction, you may contact Holden Service Parts Operations on (03) 9 797 7341

Naturally, telephoning is the quickest and the best way to contact. However, if you prefer to write the address is:

✉ The Manager
Holden Customer Assistance Services
GPO Box 343C
Melbourne, 3001.

Your letter should clearly outline your concern or query, and include the following:

✍
- Your name and address
- Telephone numbers, both private & business
- Servicing Dealership's name and address
- Vehicle model
- Vehicle identification number (I.S.O.V.I.N.), see inside front cover of this Handbook.
- Date of purchase
- Current odometer reading

Most of this information will be found on the Vehicle Identification Certificate, located inside the front cover of this handbook.

Before you write however, remember that the telephone is the quicker and more efficient means of communication.

Notes

Notes

CHAPTER 10

Towing

Page

10-2 Loading
10-3 Towing
10-4 Towing precautions

LOADING THE CAR

Overloading is a safety hazard and could also shorten the life of your car or its parts. The recommended carrying capacity of your car is: 480 kg (including 5 occupants and luggage)
If you load your car other than to the above recommendations then you should ensure that the MAXIMUM REAR AXLE LOAD and the GROSS VEHICLE WEIGHT are not exceeded

Kerb weight

The kerb weights shown in the chart are for the weight of a standard unloaded car, without any options, but with a full tank of fuel.

(G.V.W.) Gross Vehicle Weight

The Gross Vehicle Weight is the maximum that a car is allowed to weigh when fully loaded. This must include any luggage, passengers, roof rack load and a full tank of fuel. If you are towing, then the weight of the tow bar ball load (see following page) must also be included. The maximum, allowable weight for your car is shown in the chart below.

Maximum rear axle load

Remember to take the tow bar ball load into account when determining the rear axle load The maximum allowable rear axle load for your car is shown in the following chart.

WEIGH kg	City 1.6 Hatch		City 1.6 Sedan		GL 1.8 Hatch		GL 1.8 Sedan		GSI
	manual	auto	manual	auto	manual	auto	manual	auto	
Kerb	1032	1052	1042	1062	1126	1156	1136	1166	1193
G.V.W.	1491	1511	1501	1521	1585	1615	1595	1625	1645
Max. rear axle	750	750	750	750	765	765	765	765	765

Roof rack loads

For safety reasons and to avoid damaging the roof, only the roof rack approved by Holden for your car, should be used. The maximum allowable load is 100 kg.

Roof rack loads alter the handling of a car, due to a change in the centre of gravity. When carrying loads on the roof rack avoid abrupt swerving or sharp steering. The load should be evenly distributed and you should not drive faster than 120 km/h. The weight on the roof rack must be included when working out the maximum car load (G.V.W.) - the roof rack load should be treated as luggage.

TOWING

Your car is designed primarily as a passenger car, so handling, durability and economy may be affected by towing a caravan or trailer. Before attempting any towing, ensure that the correct equipment is fitted.

The towing capacity when trailer brakes are fitted: 1,000 kg

The towing capacity when trailer brakes are *not* fitted: 500 kg

In higher elevations and/or mountainous terrain the maximum towing and loading limits should be reduced.

Note: Holden towing equipment is recommended where it is available. Where it is not available, no recommendation is made as to the make of equipment which should be used. Holden will not accept liability for defects occurring in towing equipment not marketed by Holden or for defects in the car arising from the use of such equipment.

Tow bar ball load

The tow bar ball load is the weight on the tow bar ball, when the packed trailer/caravan is hitched. It must not exceed or drop below the following.

- loaded trailer weighing up to 625 kg - at least 4% of the loaded trailer weight.
- loaded trailer weighing over 625 kg - at least 25 kg but not more than 75 kg.

The tow bar ball load can be adjusted by correctly packing the contents of the trailer/caravan.

If the ball load is too light or too heavy, the steering and handling of the car will be greatly impaired. However, it is desirable to aim for the maximum, rather than the minimum tow bar ball load.

When measuring the tow bar ball load, make sure that the drawbar of the loaded trailer/caravan is at the same height as it will be when the trailer/caravan is mounted on the car. This is particularly important for trailer/caravans with tandem axles.

TOWING cont.

Safe towing tips

Your car will handle differently when towing. It's a good idea to make a couple of short distance trips with the trailer/caravan before you set off on the big one.

Have your car correctly maintained and serviced.

Have your trailer/caravan maintained and serviced, with particular attention given to condition of brakes, tyres, suspension, wheel bearings, towing coupling and lighting.

You should have an extended-arm mirror on both sides of your car.

Headlights may need re-aiming after the loaded caravan has been hitched, particularly if a load equalizing hitch is not used.

Use a lower gear, rather than your brakes when descending steep hills.

If your trailer/caravan moves off the road behind you, allow the left wheels of your car to move off as well. When it is safe to do so, carefully steer back on to the road. A sudden attempt to steer back could make you swerve dangerously.

Towing precautions

- **When towing you should not exceed 80 km/h.**
- When towing, your tyres should be inflated to the maximum recommended pressure shown on the tyre placard.
- Loads should be secured so that they cannot slip and should be placed in the centre of the trailer/caravan if possible, i.e. above the axle.
- Trailer brakes are required on trailer/caravans weighing over 500 kg when loaded. Some States require trailer brakes on loads less than 500 kg.
- The brakes on the trailer/caravan must be designed to cope with the braking requirements of that trailer/caravan under all towing conditions, without adversely affecting the brakes on the car.
- Make sure that you have enough room when cornering and avoid sudden manoeuvres.
- In the case of trailer/caravans with low directional stability, it is advisable to use a stabiliser to damp rolling motions.
- The cooling fan is driven electrically and so is not dependant on engine speed. At high engine speeds a lot of heat is produced and at low engine speeds correspondingly less heat is produced. For this reason, when driving uphill, do not shift down into a lower gear (which will increase engine speed) whenever the car can still climb the hill in the higher gear.
- Whenever a towbar is removed, be certain to have any mounting holes in the underbody properly sealed to prevent the possible entry of exhaust fumes, dust and water.
- Ensure that the tow bar does not obscure the rear licence plate. If necessary, remove the towbar tongue when it is not required for towing.
- If starting off on hills with a manual transmission, the most favourable engine speed is between 2,000 and 3,000 r.p.m. If an automatic transmission is fitted it is sufficient to fully depress the accelerator.

CHAPTER 11

Cleaning

Page

INTERIOR CLEANING

11-2 Upholstery
11-2 Vinyl (P.V.C.) fabrics
11-3 Cloth fabrics
11-3 Carpet
11-3 Seat belts
11-3 Interior glass

EXTERIOR CLEANING

11-4 Washing
11-5 Grease, oil & tar spots
11-5 Polishing
11-5 Paint inspection
11-5 Wheels
11-6 Exterior glass
11-7 List of care & maintenance materials

INTERIOR CLEANING

CAUTION:

Many cleaners may be toxic, flammable or may damage the interior. When cleaning the interior, avoid volatile cleaners such as: acetone, lacquer thinners, enamel reducers, nail polish removers, or cleaners such as laundry soaps, bleaches or reducing agents. Never use carbon tetrachloride, gasoline or naphtha for any cleaning purpose. Be sure the car is well ventilated while using any cleaners and always follow the cleaning manufacturer's recommendations.

Care and cleaning of upholstery

Dust and dirt which accumulate on upholstery should be removed every few weeks - more often with constant driving. This can be done readily with a vacuum cleaner. Before attempting to remove spots and stains, it is necessary to determine as accurately as possible:

- The type of fabric.
- The nature and age of the stain.
- The effect of the stain removal agent upon the colour, structure and general appearance of the upholstery.

It is essential that stains be removed as soon as possible after they have been made. If they are allowed to remain on the fabric for any length of time they very often become oxidised or set, and removal becomes difficult, if not impossible.

Cleaning P.V.C. coated fabrics

Vinyl (P.V.C.) coated fabrics are used for seating, head linings and auxiliary trimming. The grades used vary according to their function. P.V.C. fabrics are generally made by coating fabric with synthetic resins. Care of P.V.C. fabrics is a relatively simple but important matter. The surface should be wiped over with a dry cloth during the regular cleaning of the car.

Should dirt accumulate and become embedded in the material pattern, the following procedure is recommended.

1. Using lukewarm water and soap, or Holden Velour Fabric and Vinyl Cleaner, work up thick suds on a piece of cheesecloth, and apply to the surface. A soft bristle brush can be used to remove stubborn stains or dirt embedded in the grain of the material.
2. Repeat using only a damp cloth and no soap.
3. Wipe dry with a soft cloth. The above cleaning instructions also apply to the rubber floor mats.

INTERIOR CLEANING

Cleaning cloth trim

Where the seats in your car are upholstered with cloth, the following instructions should be observed.

- Most loose dirt and dust can be removed by a vacuum cleaner or soft brush.
- DO NOT use a whisk broom or a coarse hair brush.
- If normal soiling should take place it is recommended that the fabric be sponged lightly with warm water containing a detergent and a small amount of ammonia. The fabric should then be rubbed lightly, and if necessary, sponged again to remove anything stubborn. Soak up excess fluid with a dry cloth. Holden Velour Fabric and Vinyl Cleaner may be used to advantage, but should be used sparingly.

Cleaning carpet

Thoroughly brush or vacuum the carpet. In many instances the carpet may require no further cleaning. If the carpet is extremely soiled, thoroughly vacuum it to remove loose dirt then, using Holden Velour Fabric and Vinyl Cleaner, clean approximately one square foot at a time. After each area is cleaned, remove as much of the cleaner as possible with a vacuum cleaner.

Cleaning seat belts

Cleaning of seat belts can be carried out by using a mild non-abrasive soap and lukewarm water. After washing be sure to thoroughly sponge the washing solution out of the belts.

CAUTION:

Do not bleach or dye seat belts since this may severely weaken them.

Cleaning interior glass

The interior glass area of the car should be cleaned using Holden Glass Cleaner with a clean soft cloth. Care must be taken when cleaning inside the rear window so as not to damage the demister.

Never use abrasive cleaners on any car glass, as they may cause scratches.

WASHING

CAUTION:

Care should be taken when moving the car after washing, in case water has affected the brakes. Applying the brakes lightly will indicate whether they have been affected. To dry them quickly, lightly apply the brakes while maintaining a slow forward speed with a clear area ahead, until brake performance returns to normal.

Underbody cleaning

Your car has a factory-applied PVC undercoating in the wheel arches (including longitudinal members) which provides permanent protection and needs no special maintenance. The surfaces of the car underside not covered by PVC are provided with a durable protective wax coating. Once a year, preferably before the start of the cold season the wax coating and PVC coating should be checked and if necessary, restored to perfect condition. Commercial bitumen and rubber materials can damage PVC coating. Have all work on the underbody performed by a Holden Dealer, as it requires knowledge of the specified materials and experience concerning their application.

The underbody should be washed following the end of the cold weather season to remove any dirt adhering to the underbody, since this may also contain salt.

Washing paint

Washing not only removes dirt and road grime that settles on the car, but also dilutes acids which accompany such grime, in particular, salt from air or sea spray encountered in coastal areas which often become trapped in crevices. Tree sap, road tar, excretion from birds, insects and industrial fall out often contain harmful chemicals and other foreign matter that may permanently damage the paint finish of the car. These should be removed without delay, using an effective removal agent.

Regular washing

If the car is in continuous use, it should be washed at least once a week with either cold or warm water (preferably running water), using clean chamois leathers, sponges or rags free from dirt or grit likely to scratch the paint finish. It is good practice to first hose the car to remove as much of the grit and grime as possible before swabbing the surface.

Do not wash the car under bright sunlight on hot days, as this will result in a streaky or spotted paint finish. This is caused by refraction of sunlight through the water drops (just like a magnifying glass) which concentrates the sunlight, producing very high temperatures on the paint surface. For the same reason, you should thoroughly dry the car after washing.

Holden Foaming Car Wash or Wash On Shine loosens road grime to make washing easier and leaves paint shining clean, refer last pages of this chapter.

Do not use hot water, strong soap or chemical detergents. Any cleaner should be flushed promptly from the surface and not allowed to dry on the finish.

Hand washing of the car is recommended. However, if an automatic car wash is used then the roof antenna should be removed before driving through.

EXTERIOR CLEANING

Removing grease, oil and tar spots

Grease and oil, and even tar if it's fresh, can be removed from the finish with a little kerosene or turpentine. As a precaution against staining, wash and polish as soon as possible the area from which the foreign matter has been removed.

Warnings

- Some chemical cleaners used for removing road oils and tars from painted surfaces have been found to be detrimental to paint finishes.
- If petrol is spilt on the paint when refilling, flush off immediately with clean water, as petrol has a tendency to stain or soften new paint finish during the weathering out period, particularly when the car is exposed to high temperatures.
- Petrol MUST NOT be used to clean any painted or plastic surfaces.

Insect spots

Insect spots on the paint finished parts of the car can be easily washed off by using a solution containing 1 litre of water in which approximately 110 grams of baking soda (Bicarbonate of Soda) has been dissolved. Flush the washed parts with clean water.

Polishing and waxing

Wax your car regularly and in particular after it has been washed using shampoo, otherwise the paintwork will dry out. The car must be re-waxed before water no longer forms beads on the paint. Waxing prevents harmful chemical action. Also wax edges and folds on opened doors and flaps as well the areas they cover.

Polishing is necessary only if the paint has become dull or if solid deposits have become attached to it. Plastic body parts should not be treated with wax or polish.

Paint inspection

Regular inspection of the car should be made for scratch marks, cracks or damaged areas, all of which could develop rust and thus affect paint finish. Any deep scratches, cracks or breakdown in the finish should be repaired without delay. Care should be taken to ensure that any rusting is counteracted immediately, otherwise rust "creep" will extend beyond the damaged area. This applies particularly in sub-tropical areas or coastal districts, where the moist, or salt-laden atmosphere accelerates rusting if it is allowed to develop through neglect. The paint finish of the car gives a very high degree of protection against the weather, but it should be realised that wear and deterioration occur when the car is exposed to elements for prolonged periods. The car therefore should be garaged whenever possible.

Wheels

Wheels are painted and can be treated with the same cleaner as the body. For alloy wheels Holden alloy wheel cleaner is recommended.

EXTERIOR CLEANING

Tyres

Sponging with cold water is all that is necessary for normal cleaning of the tyres. Oil and grease can, and should be removed with soap and water or detergent. For tar or other substances, a mild abrasive, such as mechanic's hand soap or kitchen cleaning powder, may be used if necessary. Thoroughly wash the tyres with water to finish. Petrol must not be used for cleaning tyres.

New tyre look can be restored using Holden Tyre and Bumper Shine refer last pages of this chapter.

Glass cleaning - general

Special care should be taken to avoid scratching the glass when cleaning. If it is cleaned at the same time as the rest of the car, there is a possibility that particles of grit will cause fine scratches. Flush off any heavy mud deposits on the glass when washing the body, but leave the final cleaning and polishing until afterwards. Use Holden Glass Cleaner and wash each section of glass in turn, making sure that the water, its container and the sponge are quite clean and free from grit. Clean old linen cloth is better than new material for polishing glass.

Windscreen

It is important that the windscreen be kept clean so that the wiper blades may be as effective as possible in wiping the surface. Old wiper blades can cause windscreen scratching and therefore should be inspected regularly and replaced as necessary.

Abrasive materials must never be used to clean glass as they can cause scratches. A scratched windscreen will impair vision, particularly at night. After the windscreen has been cleaned with a wet sponge it should be wiped over with a soft lint free cloth or chamois.

It is recommended that Holden Optikleen be added to the windscreen washer reservoir to assist the wipers in keeping the windscreen clean whilst driving.

Wiper blades

Oil and road scum thrown up onto the windscreen will cause smearing when the wipers are switched on, as dirt then transfers onto the wiper blades. Many owners, whilst they methodically clean the windscreen glass, omit to clean the wiper blades and consequently smearing of the glass reappears immediately the wiper blades are set in motion. The blades can be cleaned by simply lifting them off the windscreen glass and cleaning with Holden Optikleen and a clean cloth.

DO NOT OPERATE THE WIPER BLADES BY HAND AS THIS MAY DAMAGE THE WIPER DRIVE MECHANISM.

If in dry conditions, the wiper blades are used to clean dust and dirt from the windscreen always use the washer system first to wet the windscreen. Ensure that the windscreen washer reservoir is not empty.

Engine bay

Important areas of the engine bay have been protected with a lacquer coating. Wash the engine only if absolutely necessary. Before washing the engine, protect the alternator and brake fluid container with plastic covers. After washing, parts of the engine, parts of the brake system located in the engine bay, axle components as well as body parts and cavities may need to protectively re-waxed.

CARE & MAINTENANCE MATERIALS

HOLDEN PART NUMBER	SIZE	DESCRIPTION	USAGE
M39828	500 ml	Polymer glaze polish	Seals in a deep, lustrous, glazed finish. Long life protection from oxidation, salt and weather damage.
M39829	500 ml	Easy gloss polish	Contains silicones and hard working waxes for extra shine.
M39646	250 g	Deep shine glaze polish	Contains carnuba wax for a mirror finish.
M39830	500 ml	Wash on shine	Contains polymer protectants to shine. Adds a protective film to paintwork.
M39831	500 ml	Foaming car wash	Leaves a no-streak finish.
M38424	400 g	Velour fabric and vinyl cleaner	Cleans and deodorises velour, most fabric and vinyl upholstery, hood linings, mats and carpets.
M40383	350g	Tyre and bumper shine	Restores tyres and bumpers to as new finish.
M40501	350 g	Glass cleaner	Cleans all glass surfaces.
M39826	500 ml	Optikleen	Windscreen washer solvent.
M39168	125 g	Car freshner/deodorant	Removes tobacco smells and other odours.
M40500	300 g	Bug, tar and spot remover	Quickly dissolves and removes tar, grease, oil, bugs and other stubborn stains from your car's exterior.

CARE & MAINTENANCE MATERIALS cont.

HOLDEN PART NUMBER	SIZE	DESCRIPTION	USAGE
M39760	350 g	Spray grease	Lithium based grease in a can. Sprays as a liquid. Ideal for springs, cables, linkages etc.
M40276	750 ml	Wheel cleaner	Cleaning of all wheels, including alloy wheels.
92026651	500 ml	Brake fluid	Extra heavy duty brake fluid.
M41512	3 litre	Radiator coolant inhibitor	Inhibitor providing year-round protection against corrosion and rust. Anti-freeze lowers freezing point for the cold winter months. Coolant increases boiling point of the cooling system for the summer months.
M39304	500 ml	Radiator cleaner	Use prior to or replacing coolant.
M37223	400 g	Degreaser	Removes oil and grease from engines.
M33028	27 g	Solid oil	Lubricant for locking mechanisms, door hinges, sticking windows.

CHAPTER 12

Servicing

Page

12-2 Service intervals
12-3 Extreme operating conditions
12-5 Maintenance schedule
12-7 Service charges
12-9 Service coupons

SERVICE INTERVALS

When it comes to service, remember that your Holden Dealer has the trained personnel and specialised equipment to correctly service your vehicle. Your Dealer invites you to return for all your service needs both during and after the warranty period.

The safety, economy, emission control, performance and reliability of your vehicle cannot be assured unless regular maintenance is performed, preferably by factory-trained technicians at Holden Dealers.

Therefore, it is in the owner's interest that the following services are performed at the specified Distance or Months (whichever occurs first).

1,500 km - 1 month inspection
15,000 km - 1 year
30,000 km - 2 years
45,000 km - 3 years
60,000 km - 4 years
75,000 km - 5 years
90,000 km - 6 years
105,000 km - 7 years
120,000 km - 8 years
135,000 km - 9 years
150,000 km - 10 years
165,000 km - 11 years
180,000 km - 12 years

The one month (1,500 kilometres) inspection will be performed without cost for labour by the Selling Dealer.

This service may be carried out by another Holden Dealer provided you have a letter of Introduction from the Selling Dealer.

Your Dealer will supply the necessary letter of Introduction upon request.

The services shown in this schedule between 15,000 km and 180,000 km are to be performed after 180,000 km at the same intervals.

NOTE: All maintenance services as listed in this handbook and replacement of service items are the responsibility of the owner and as such are NOT considered, under the provisions of the new vehicle warranty to be rectification of defective material and workmanship. Items such as wheel alignment, necessary adjustments to the transmission, clutch, parking brake, etc. or any other items which may require servicing due to fair wear and tear will be carried out at the owner's cost.

Failure to have proper maintenance services carried out by an Authorised Holden Dealer or Service Dealer may void your new Vehicle Warranty if the work is not carried out in accordance with Holden's specifications. It is strongly recommended that you read the "New Vehicle Warranty" on page 9-2, so that you are aware of the conditions.

As each service is performed and the coupon removed, the following service coupon is readily visible to remind you when the next service is due.

After the service is completed, the owner should see that the Validation Record is stamped and signed by the Dealer. This is important, as it will not only assist in determining Warranty Claims, but will enhance the value of the vehicle on resale.

EXTREME OPERATING CONDITIONS

If your vehicle operates under any of the extreme conditions listed in the following table it is recommended that some items be serviced more frequently than the intervals specified in the Maintenance Plan.

NOTE: The extra services listed below need only be used continuously if your vehicle operates continuously under the conditions specified.

If you operate under any of these conditions on a one off basis e.g. holiday trip, then an extra service should be for that period only.

As a guide, if you operate continually for a period of one month or 1,000 km under any of the extreme conditions, then this could qualify for additional services.

If at any time it is considered that the above items or other items should be more frequently serviced due to the type of operation or before a long trip, discuss the situation with the service manager of your Holden Dealer.

Change automatic transmission fluid @ 60,000km or 4 years (whichever comes first)	A	B	C
Replace engine oil and filter @ 5,000km or 3 months (whichever comes first)	A		

A = Stop-start driving, excessive idling or low speed operation as experienced in inner city driving e.g. taxi, police, door to door delivery.

B = Caravan or trailer towing.

C = Extended heavy load high speed operation in temperatures above 35°C.

EXTREME OPERATING CONDITIONS

SPECIAL SERVICE FOR EXTREME OPERATING CONDITIONS

Date .... km ....
Items performed: ....
....
....
....
Servicing
Dealer ....

SPECIAL SERVICE FOR EXTREME OPERATING CONDITIONS

Date .... km ....
Items performed: ....
....
....
....
Servicing
Dealer ....

SPECIAL SERVICE FOR EXTREME OPERATING CONDITIONS

Date .... km ....
Items performed: ....
....
....
....
Servicing
Dealer ....

SPECIAL SERVICE FOR EXTREME OPERATING CONDITIONS

Date .... km ....
Items performed: ....
....
....
....
Servicing
Dealer ....

SPECIAL SERVICE FOR EXTREME OPERATING CONDITIONS

Date .... km ....
Items performed: ....
....
....
....
Servicing
Dealer ....

SPECIAL SERVICE FOR EXTREME OPERATING CONDITIONS

Date .... km ....
Items performed: ....
....
....
....
Servicing
Dealer ....

MAINTENANCE SCHEDULE

Use odometer reading or years, whichever occurs first x 1,000 km	1.5	15	30	45	60	75	90	105	120	135	150	165	180
or years	1/12	1	2	3	4	5	6	7	8	9	10	11	12
SERVICE ITEMS													
COOLANT - check level, check coolant %	1.5	1	2	3	4	5	6	7	8	9	10	11	12
COOLANT - fluid change	Fluid not changed for life of car												
DRIVE BELTS - check		1	2	3	4	5	6	7	8	9	10	11	12
ENGINE TOOTHED BELT - replace					4				8				12
AIR CLEANER paper element - replace			2		4		6		8		10		12
SPARK PLUGS - replace					4				8				12
FUEL FILTER - replace			2		4		6		8		10		12
EXHAUST EMISSION - check with TECH 1: - readout of stored trouble codes - visual check of exhaust components - check idle speed, ignition timing, idle CO-contents - check function of catalytic converter		1	2	3	4	5	6	7	8	9	10	11	12
ENGINE OIL AND FILTER - replace		1	2	3	4	5	6	7	8	9	10	11	12
POWER STEERING - check level	1.5		2		4		6		8		10		12
AUTO TRANS - check fluid level. Readout of stored trouble codes with TECH 1			2		4		6		8		10		12
AUTO TRANS - fluid change	Fluid not changed for life of car, unless operating in extreme conditions												
LEAKAGE - visual check of engine and transmission	1.5	1	2	3	4	5	6	7	8	9	10	11	12
LIGHTS & SIGNAL DEVICES - check	1.5	1	2	3	4	5	6	7	8	9	10	11	12
WINDSCREEN WIPE/WASH system check fluid level and blade condition	1.5	1	2	3	4	5	6	7	8	9	10	11	12
CLUTCH PEDAL adjustment - check adjustment	1.5		2		4		6		8		10		12
DOOR HINGES, DOOR STOP, BONNET LOCK, TAILGATE HINGES - lubricate			2		4		6		8		10		12

MAINTENANCE SCHEDULE

Use odometer reading or years, whichever occurs first	x 1,000 km	1.5	15	30	45	60	75	90	105	120	135	150	165	180
	or years	1/12	1	2	3	4	5	6	7	8	9	10	11	12
SERVICE ITEMS														
HEADLIGHT ADJUSTMENT - check			1	2	3	4	5	6	7	8	9	10	11	12
BODY/UNDERBODY - check corrosion protection		1/12	1	2	3	4	5	6	7	8	9	10	11	12
FRONT DISC BRAKES - check pad thickness			1	2	3	4	5	6	7	8	9	10	11	12
REAR DRUM BRAKES - check pad thickness				2		4		6		8		10		12
BRAKE PIPES, BRAKE PRESSURE HOSES AND FUEL LINES - visual check		1/12	1	2	3	4	5	6	7	8	9	10	11	12
RUBBER BOOTS - check		1/12		2		4		6		8		10		12
WHEELS - check wheel nut torque, tyre condition and tyre pressure		1/12	1	2	3	4	5	6	7	8	9	10	11	12
BRAKE PROPORTIONING VALVE - check			1	2	3	4	5	6	7	8	9	10	11	12
BRAKE FLUID - change			change every 2 years (regardless of km)											
POLLEN FILTER - change			1	2	3	4	5	6	7	8	9	10	11	12
ROAD TEST		1/12	1	2	3	4	5	6	7	8	9	10	11	12

SERVICE CHARGES

1,500 km (1month) inspection

**** Free ****

15,000 km (1 year)

Labour:
- 1.5 hours

Parts:
- Engine oil filter
- Pollen filter

Lubricants:
- Engine oil

30,000 km (2 years)

Labour:
- 1.9 hours

Parts:
- Engine oil filter
- Air cleaner element
- Fuel filter
- Pollen filter

Lubricants:
- Engine oil

45,000 km (3 years)

Labour:
- 1.5 hours

Parts:
- Engine oil filter
- Pollen filter

Lubricants:
- Engine oil

60,000 km (4 years)

Labour:
- 1.9 hours
- add 0.9 hours if single overhead cam engine
- add 1.2 hours if double overhead cam engine

Parts:
- Engine oil filter
- Pollen filter
- Air cleaner element
- Fuel filter
- Spark plugs
- Engine toothed belt

Lubricants:
- Engine oil

75,000 km (5 years)

Labour:
- 1.5 hour

Parts:
- Engine oil filter
- Pollen filter

Lubricants:
- Engine oil

90,000 km (6 years)

Labour:
- 1.9 hours

Parts:
- Engine oil filter
- Air cleaner element
- Fuel filter
- Pollen filter

Lubricants:
- Engine oil

105,000 km (7 years)

Labour:
- 1.5 hours

Parts:
- Engine oil filter
- Pollen filter

Lubricants:
- Engine oil

120,000 km (8 years)

Labour:
- 1.9 hours
- add 0.9 hours if single overhead cam engine
- add 1.2 hours if double overhead cam engine

Parts:
- Engine oil filter
- Pollen filter
- Spark plugs
- Air cleaner element
- Fuel filter
- Engine toothed belt

Lubricants:
- Engine oil

135,000 km (9 years)

Labour:
- 1.5 hours

Parts:
- Engine oil filter
- Pollen filter

Lubricants:
- Engine oil

SERVICE CHARGES

150,000 km (10 years)

Labour:
- 1.9 hours

Parts:
- Engine oil filter
- Air cleaner element
- Pollen filter
- Fuel filter

Lubricants:
- Engine oil

165,000 km (11 years)

Labour:
- 1.5 hours

Parts:
- Engine oil filter
- Pollen filter

Lubricants:
- Engine oil

180,000 km (12 years)

Labour:
- 1.9 hours
- add 0.9 hours if single overhead cam engine
- add 1.2 hours if double overhead cam engine

Parts:
- Engine oil filter
- Pollen filter
- Air cleaner element
- Spark plugs
- Fuel filter
- Engine toothed belt

Lubricants:
- Engine oil

In addition to labour times listed previously, the following operations will be charged for, when required, on a time only basis:

Brake fluid must be changed every two years (add charges for brake fluid and 0.2 hours labour time).

- The owner will be charged for all lubricants and materials used plus labour at the times recommended above.
- The repair or replacement of any part found faulty during a service check and not covered by Holden Warranty will be added to the charges.
- Where any deficiencies are noted, such items should be reported to the owner/operator so that the extra work required can be authorised.
- The use of break-in oil, tune up compounds, friction reducing compounds and other supplemental additives are not recommended; their use will not only increase operating costs, but may indeed be harmful to your vehicle.

1,500 km or 1 month Inspection Validation

This car has been thoroughly checked in accordance with the 1,500 km/one month inspection.

Dealer ....

Service Manager's signature ....

Date .... Odometer reading ....

1,500km or 1 month INSPECTION

General Motors- Holden's Automotive Ltd (A.C.N. 006 893 232) invites the new owner of this car to return to the selling Dealer for a free service inspection at 1,500 km.

Owner's Name
Mr.
Mrs. ....
Miss.
Other............

Address ....

Town & State .... Postcode ....

Reg. no. .... Engine no ....

I.S.O.V.I.N. .... Model ....

Odometer reading .... Date of Acquisition ....

Selling Dealer's Stamp & Signature ....

This car has been thoroughly checked in accordance with the items on the reverse side of this voucher.

This inspection is provided free of charge.

Servicing Dealer's Stamp & Signature

Servicing Dealer ....

Town .... State ....

Owner's signature ....

- ☐ COOLANT - check fluid level, check coolant %
- ☐ ENGINE OIL - check fluid level
- ☐ POWER STEERING - check fluid level
- ☐ WASHER - check fluid level
- ☐ BRAKE FLUID - check fluid level
- ☐ LEAKAGE - visual check of engine and trans
- ☐ LIGHTS AND SIGNALLING DEVICES - check
- ☐ CLUTCH PEDAL adjustment - check adjustment
- ☐ BODY/UNDERBODY - check corrosion protection
- ☐ BRAKE PIPES, BRAKE PRESSURE HOSES AND FUEL LINES - visual check
- ☐ RUBBER BOOTS - check
- ☐ WHEELS - check wheel nut torque, tyre condition and tyre pressure
- ☐ ROAD TEST

15,000 km or 1 year

SERVICE COUPON

I authorise performance of the services specified on the rear of this coupon.

I understand I will be charged for the following hours of labour:

- 1.5 hours

Also, that there will be a charge for all lubricants, filters and parts used as a result of checks and additional services performed as requested.

There will also be a charge for additional services as requested:

....

....

....

Signature ....

Date ....

15,000 km or 1 year Service Validation

Servicing Dealer ....
Brake fluid changed: YES/NO
Date of Service ....
Odometer ....
Signed ....

Additional services performed: ....
....
....
....
....

☐ COOLANT - check level, check coolant %

☐ DRIVE BELTS - check

☐ EXHAUST EMISSION - check with TECH 1: - read-out of stored trouble codes - visual check of exhaust components - check idle speed, ignition timing, idle CO-contents - check function of catalytic converter

☐ ENGINE OIL AND FILTER - replace

☐ POLLEN FILTER - replace

☐ LEAKAGE - visual check of engine and trans.

☐ LIGHTS AND SIGNALLING DEVICES - check

☐ WINDSCREEN WIPE/WASH system - check fluid level and blade condition

☐ HEADLIGHT ADJUSTMENT - check

☐ BODY/UNDERBODY - check corrosion protection

☐ FRONT DISC BRAKES - check pad thickness

☐ BRAKE PIPES, BRAKE PRESSURE HOSES AND FUEL LINES - visual check

☐ WHEELS - check wheel nut torque, tyre condition and tyre pressure

☐ BRAKE PROPORTIONING VALVE - check

☐ ROAD TEST

30,000 km
or
2 years

SERVICE
COUPON

I authorise performance of the services specified on the rear of this coupon.

I understand I will be charged for the following hours of labour:

- 1.9 hours labour
- add 0.2 hours if brake fluid changed

Also, that there will be a charge for all lubricants, filters and parts used as a result of checks and additional services performed as requested.

There will also be a charge for additional services as requested:

....

....

....

Signature ....

Date ....

30,000 km or
2 year
Service
Validation

Servicing Dealer ....
Brake fluid changed: YES/NO
Date of Service ....
Odometer ....
Signed ....

Additional services performed: ....
....
....
....
....

- ☐ COOLANT - check level, check coolant %
- ☐ POLLEN FILTER - replace
- ☐ DRIVE BELTS - check
- ☐ AIR CLEANER paper element - replace
- ☐ FUEL FILTER - replace
- ☐ EXHAUST EMISSION - check with TECH 1: - read-out of stored trouble codes - visual check of exhaust components - check idle speed, ignition timing, idle CO-contents - check function of catalytic converter
- ☐ ENGINE OIL AND FILTER - replace
- ☐ POWER STEERING - check level
- ☐ AUTO TRANS - check fluid level. Read-out of stored trouble codes with TECH 1
- ☐ LEAKAGE - visual check of engine and trans
- ☐ LIGHTS AND SIGNALLING DEVICES - check
- ☐ WINDSCREEN WIPE/WASH system - check fluid level and blade condition
- ☐ CLUTCH PEDAL adjustment - check adjustment
- ☐ DOOR HINGES, DOOR STOP, BONNET LOCK, TAILGATE HINGES - lubricate
- ☐ HEADLIGHT ADJUSTMENT - check
- ☐ BODY/UNDERBODY - check corrosion protection
- ☐ FRONT DISC BRAKES - check pad thickness
- ☐ REAR DRUM BRAKES - check pad thickness
- ☐ BRAKE PIPES, BRAKE PRESSURE HOSES AND FUEL LINES - visual check
- ☐ RUBBER BOOTS - check
- ☐ WHEELS - check wheel nut torque, tyre condition and tyre pressure
- ☐ BRAKE PROPORTIONING VALVE - check
- ☐ ROAD TEST

- ☐ BRAKE FLUID - change every 2 years (regardless of km)

45,000 km
or
3 years
SERVICE
COUPON

I authorise performance of the services specified on the rear of this coupon.

I understand I will be charged for the following hours of labour:

- 1.5 hours labour
- add 0.2 hours if brake fluid changed

Also, that there will be a charge for all lubricants, filters and parts used as a result of checks and additional services performed as requested.

There will also be a charge for additional services as requested:

....

....

....

Signature ....

Date ....

45,000 km or
3 years
Service
Validation

Servicing Dealer ....
Brake fluid changed: YES/NO
Date of Service ....
Odometer ....
Signed ....

Additional services performed: ....

....

....

....

....

- ☐ COOLANT - check level, check coolant %
- ☐ POLLEN FILTER - replace
- ☐ DRIVE BELTS - check
- ☐ EXHAUST EMISSION - check with TECH 1: - read-out of stored trouble codes - visual check of exhaust components - check idle speed, ignition timing, idle CO-contents - check function of catalytic converter
- ☐ ENGINE OIL AND FILTER - replace
- ☐ LEAKAGE - visual check of engine and trans
- ☐ LIGHTS AND SIGNALLING DEVICES - check
- ☐ WINDSCREEN WIPE/WASH system - check fluid level and blade condition
- ☐ HEADLIGHT ADJUSTMENT - check
- ☐ BODY/UNDERBODY - check corrosion protection
- ☐ FRONT DISC BRAKES - check pad thickness
- ☐ BRAKE PIPES, BRAKE PRESSURE HOSES AND FUEL LINES - visual check
- ☐ WHEELS - check wheel nut torque, tyre condition and tyre pressure
- ☐ BRAKE PROPORTIONING VALVE - check
- ☐ ROAD TEST

- ☐ BRAKE FLUID - change every 2 years (regardless of km)

60,000 km or
4 years
Service
Validation

Servicing Dealer ....
Brake fluid changed: YES/NO
Date of Service ....
Odometer ....
Signed ....

Additional services performed: ....
....
....
....
....

60,000 km or 4 years SERVICE COUPON

I authorise performance of the services specified on the rear of this coupon.

I understand I will be charged for the following hours of labour:

- 1.9 hours labour
- add 0.2 hours if brake fluid changed
- add 0.9 hours for single overhead cam engine
- add 1.2 hours for double overhead cam engine

Also, that there will be a charge for all lubricants, filters and parts used as a result of checks and additional services performed as requested.

There will also be a charge for additional services as requested:

....
....
....

Signature ....

Date ....

- ☐ COOLANT - check level, check coolant %
- ☐ POLLEN FILTER - replace
- ☐ DRIVE BELTS - check
- ☐ ENGINE TOOTHED BELT - replace
- ☐ AIR CLEANER paper element - replace
- ☐ SPARK PLUGS - replace
- ☐ FUEL FILTER - replace
- ☐ EXHAUST EMISSION - check with TECH 1: - read-out of stored trouble codes - visual check of exhaust components - check idle speed, ignition timing, idle CO-contents - check function of catalytic converter
- ☐ ENGINE OIL AND FILTER - replace
- ☐ POWER STEERING - check level
- ☐ AUTO TRANS - check fluid level. Read-out of stored trouble codes with TECH 1
- ☐ LEAKAGE - visual check of engine and trans
- ☐ LIGHTS AND SIGNALLING DEVICES - check
- ☐ WINDSCREEN WIPE/WASH system - check fluid level and blade condition
- ☐ CLUTCH PEDAL adjustment - check adjustment
- ☐ DOOR HINGES, DOOR STOP, BONNET LOCK, TAILGATE HINGES - lubricate
- ☐ HEADLIGHT ADJUSTMENT - check
- ☐ BODY/UNDERBODY - check corrosion protection
- ☐ FRONT DISC BRAKES - check pad thickness
- ☐ REAR DRUM BRAKES - check pad thickness
- ☐ BRAKE PIPES, BRAKE PRESSURE HOSES AND FUEL LINES - visual check
- ☐ RUBBER BOOTS - check
- ☐ WHEELS - check wheel nut torque, tyre condition and tyre pressure
- ☐ BRAKE PROPORTIONING VALVE - check
- ☐ ROAD TEST

- ☐ BRAKE FLUID - change every 2 years (regardless of km)

75,000 km or 5 years SERVICE COUPON

I authorise performance of the services specified on the rear of this coupon.

I understand I will be charged for the following hours of labour:

- 1.5 hours labour
- add 0.2 hours if brake fluid changed

Also, that there will be a charge for all lubricants, filters and parts used as a result of checks and additional services performed as requested.

There will also be a charge for additional services as requested:

....

....

....

Signature ....

Date ....

75,000 km or 5 years Service Validation

Servicing Dealer ....

Brake fluid changed: YES/NO

Date of Service ....

Odometer ....

Signed ....

Additional services performed: ....

....

....

....

....

- ☐ COOLANT - check level, check coolant %
- ☐ POLLEN FILTER - replace
- ☐ DRIVE BELTS - check
- ☐ EXHAUST EMISSION - check with TECH 1: - read-out of stored trouble codes - visual check of exhaust components - check idle speed, ignition timing, idle CO-contents - check function of catalytic converter
- ☐ ENGINE OIL AND FILTER - replace
- ☐ LEAKAGE - visual check of engine and trans
- ☐ LIGHTS AND SIGNALLING DEVICES - check
- ☐ WINDSCREEN WIPE/WASH system - check fluid level and blade condition
- ☐ HEADLIGHT ADJUSTMENT - check
- ☐ BODY/UNDERBODY - check corrosion protection
- ☐ FRONT DISC BRAKES - check pad thickness
- ☐ BRAKE PIPES, BRAKE PRESSURE HOSES AND FUEL LINES - visual check
- ☐ WHEELS - check wheel nut torque, tyre condition and tyre pressure
- ☐ BRAKE PROPORTIONING VALVE - check
- ☐ ROAD TEST

- ☐ BRAKE FLUID - change every 2 years (regardless of km)

90,000 km or 6 years Service Validation

Servicing Dealer ....

Brake fluid changed: YES/NO

Date of Service.......................

Odometer ....

Signed..................................

Additional services performed: ....

....

....

....

....

90,000 km
or
6 years
SERVICE
COUPON

I authorise performance of the services specified on the rear of this coupon.

I understand I will be charged for the following hours of labour:

- 1.9 hours labour
- add 0.2 hours if brake fluid changed

Also, that there will be a charge for all lubricants, filters and parts used as a result of checks and additional services performed as requested.

There will also be a charge for additional services as requested:

....

....

....

Signature ....

Date ....

- ☐ COOLANT - check level, check coolant %
- ☐ POLLEN FILTER - replace
- ☐ DRIVE BELTS - check
- ☐ AIR CLEANER paper element - replace
- ☐ FUEL FILTER - replace
- ☐ EXHAUST EMISSION - check with TECH 1: - read-out of stored trouble codes - visual check of exhaust components - check idle speed, ignition timing, idle CO-contents - check function of catalytic converter
- ☐ ENGINE OIL AND FILTER - replace
- ☐ POWER STEERING - check level
- ☐ AUTO TRANS - check fluid level. Read-out of stored trouble codes with TECH 1
- ☐ LEAKAGE - visual check of engine and trans
- ☐ LIGHTS AND SIGNALLING DEVICES - check
- ☐ WINDSCREEN WIPE/WASH system - check fluid level and blade condition
- ☐ CLUTCH PEDAL adjustment - check adjustment
- ☐ DOOR HINGES, DOOR STOP, BONNET LOCK, TAILGATE HINGES - lubricate
- ☐ HEADLIGHT ADJUSTMENT - check
- ☐ BODY/UNDERBODY - check corrosion protection
- ☐ FRONT DISC BRAKES - check pad thickness
- ☐ REAR DRUM BRAKES - check pad thickness
- ☐ BRAKE PIPES, BRAKE PRESSURE HOSES AND FUEL LINES - visual check
- ☐ RUBBER BOOTS - check
- ☐ WHEELS - check wheel nut torque, tyre condition and tyre pressure
- ☐ BRAKE PROPORTIONING VALVE - check
- ☐ ROAD TEST

- ☐ BRAKE FLUID - change every 2 years (regardless of km)

105,000 km or
7 years
Service
Validation

Servicing Dealer ....
Brake fluid changed: YES/NO
Date of Service ....
Odometer ....
Signed ....

Additional services performed: ....
....
....
....
....

105,000 km
or
7 years
SERVICE
COUPON

I authorise performance of the services specified on the rear of this coupon.

I understand I will be charged for the following hours of labour:

- 1.5 hours labour
- add 0.2 hours if brake fluid changed

Also, that there will be a charge for all lubricants, filters and parts used as a result of checks and additional services performed as requested.

There will also be a charge for additional services as requested:

....
....
....

Signature ....

Date ....

☐ COOLANT - check level, check coolant %

☐ POLLEN FILTER - replace

☐ DRIVE BELTS - check

☐ EXHAUST EMISSION - check with TECH 1: - read-out of stored trouble codes - visual check of exhaust components - check idle speed, ignition timing, idle CO-contents - check function of catalytic converter

☐ ENGINE OIL AND FILTER - replace

☐ LEAKAGE - visual check of engine and trans

☐ LIGHTS AND SIGNALLING DEVICES - check

☐ WINDSCREEN WIPE/WASH system - check fluid level and blade condition

☐ HEADLIGHT ADJUSTMENT - check

☐ BODY/UNDERBODY - check corrosion protection

☐ FRONT DISC BRAKES - check pad thickness

☐ BRAKE PIPES, BRAKE PRESSURE HOSES AND FUEL LINES - visual check

☐ WHEELS - check wheel nut torque, tyre condition and tyre pressure

☐ BRAKE PROPORTIONING VALVE - check

☐ ROAD TEST

☐ BRAKE FLUID - change every 2 years (regardless of km)

120,000 km or 8 years Service Validation

Servicing Dealer ....

Brake fluid changed: YES/NO

Date of Service ....

Odometer ....

Signed ....

Additional services performed: ....

....

....

....

....

120,000 km or 8 years SERVICE COUPON

I authorise performance of the services specified on the rear of this coupon.

I understand I will be charged for the following hours of labour:

- 1.9 hours labour
- add 0.2 hours if brake fluid changed
- add 0.9 hours for single overhead cam engine
- add 1.2 hours for double overhead cam engine

Also, that there will be a charge for all lubricants, filters and parts used as a result of checks and additional services performed as requested.

There will also be a charge for additional services as requested:

....

....

....

Signature ....

Date ....

- ☐ COOLANT - check level, check coolant %
- ☐ POLLEN FILTER - replace
- ☐ DRIVE BELTS - check
- ☐ ENGINE TOOTHED BELT - replace
- ☐ AIR CLEANER paper element - replace
- ☐ SPARK PLUGS - replace
- ☐ FUEL FILTER - replace
- ☐ EXHAUST EMISSION - check with TECH 1: - read-out of stored trouble codes - visual check of exhaust components - check idle speed, ignition timing, idle CO-contents - check function of catalytic converter
- ☐ ENGINE OIL AND FILTER - replace
- ☐ POWER STEERING - check level
- ☐ AUTO TRANS - check fluid level. Read-out of stored trouble codes with TECH 1
- ☐ LEAKAGE - visual check of engine and trans
- ☐ LIGHTS AND SIGNALLING DEVICES - check
- ☐ WINDSCREEN WIPE/WASH system - check fluid level and blade condition
- ☐ CLUTCH PEDAL adjustment - check adjustment
- ☐ DOOR HINGES, DOOR STOP, BONNET LOCK, TAILGATE HINGES - lubricate
- ☐ HEADLIGHT ADJUSTMENT - check
- ☐ BODY/UNDERBODY - check corrosion protection
- ☐ FRONT DISC BRAKES - check pad thickness
- ☐ REAR DRUM BRAKES - check pad thickness
- ☐ BRAKE PIPES, BRAKE PRESSURE HOSES AND FUEL LINES - visual check
- ☐ RUBBER BOOTS - check
- ☐ WHEELS - check wheel nut torque, tyre condition and tyre pressure
- ☐ BRAKE PROPORTIONING VALVE - check
- ☐ ROAD TEST

- ☐ BRAKE FLUID - change every 2 years (regardless of km)

**135,000 km or
9 years
Service
Validation**

Servicing Dealer ....
Brake fluid changed: YES/NO
Date of Service ....
Odometer ....
Signed ....

Additional services performed: ....
....
....
....
....

135,000 km
or
9 years
SERVICE
COUPON

I authorise performance of the services specified on the rear of this coupon.

I understand I will be charged for the following hours of labour:

- 1.5 hours labour
- add 0.2 hours if brake fluid changed

Also, that there will be a charge for all lubricants, filters and parts used as a result of checks and additional services performed as requested.

There will also be a charge for additional services as requested:

....
....
....

Signature ....

Date ....

- ☐ COOLANT - check level, check coolant %
- ☐ POLLEN FILTER - replace
- ☐ DRIVE BELTS - check
- ☐ EXHAUST EMISSION - check with TECH 1: - read-out of stored trouble codes - visual check of exhaust components - check idle speed, ignition timing, idle CO-contents - check function of catalytic converter
- ☐ ENGINE OIL AND FILTER - replace
- ☐ LEAKAGE - visual check of engine and trans
- ☐ LIGHTS AND SIGNALLING DEVICES - check
- ☐ WINDSCREEN WIPE/WASH system - check fluid level and blade condition
- ☐ HEADLIGHT ADJUSTMENT - check
- ☐ BODY/UNDERBODY - check corrosion protection
- ☐ FRONT DISC BRAKES - check pad thickness
- ☐ BRAKE PIPES, BRAKE PRESSURE HOSES AND FUEL LINES - visual check
- ☐ WHEELS - check wheel nut torque, tyre condition and tyre pressure
- ☐ BRAKE PROPORTIONING VALVE - check
- ☐ ROAD TEST

- ☐ BRAKE FLUID - change every 2 years (regardless of km)

150,000 km or 10 years SERVICE COUPON

I authorise performance of the services specified on the rear of this coupon.

I understand I will be charged for the following hours of labour:

- 1.9 hours labour
- add 0.2 hours if brake fluid changed

Also, that there will be a charge for all lubricants, filters and parts used as a result of checks and additional services performed as requested.

There will also be a charge for additional services as requested:

....

....

....

Signature ....

Date ....

150,000 km or 10 years Service Validation

Servicing Dealer ....
Brake fluid changed: YES/NO
Date of Service ....
Odometer ....
Signed ....

Additional services performed: ....
....
....
....
....

☐ COOLANT - check level, check coolant %

☐ POLLEN FILTER - replace

☐ DRIVE BELTS - check

☐ AIR CLEANER paper element - replace

☐ FUEL FILTER - replace

☐ EXHAUST EMISSION - check with TECH 1: - read-out of stored trouble codes - visual check of exhaust components - check idle speed, ignition timing, idle CO-contents - check function of catalytic converter

☐ ENGINE OIL AND FILTER - replace

☐ POWER STEERING - check level

☐ AUTO TRANS - check fluid level. Read-out of stored trouble codes with TECH 1

☐ LEAKAGE - visual check of engine and trans

☐ LIGHTS AND SIGNALLING DEVICES - check

☐ WINDSCREEN WIPE/WASH system - check fluid level and blade condition

☐ CLUTCH PEDAL adjustment - check adjustment

☐ DOOR HINGES, DOOR STOP, BONNET LOCK, TAILGATE HINGES - lubricate

☐ HEADLIGHT ADJUSTMENT - check

☐ BODY/UNDERBODY - check corrosion protection

☐ FRONT DISC BRAKES - check pad thickness

☐ REAR DRUM BRAKES - check pad thickness

☐ BRAKE PIPES, BRAKE PRESSURE HOSES AND FUEL LINES - visual check

☐ RUBBER BOOTS - check

☐ WHEELS - check wheel nut torque, tyre condition and tyre pressure

☐ BRAKE PROPORTIONING VALVE - check

☐ ROAD TEST

☐ BRAKE FLUID - change every 2 years (regardless of km)

165,000 km or 11 years Service Validation

Servicing Dealer ....
Brake fluid changed: YES/NO
Date of Service ....
Odometer ....
Signed ....

Additional services performed: ....
....
....
....
....

165,000 km or 11 years SERVICE COUPON

I authorise performance of the services specified on the rear of this coupon.

I understand I will be charged for the following hours of labour:

- 1.5 hours labour
- add 0.2 hours if brake fluid changed

Also, that there will be a charge for all lubricants, filters and parts used as a result of checks and additional services performed as requested.

There will also be a charge for additional services as requested:

....
....
....

Signature ....

Date ....

- ☐ COOLANT - check level, check coolant %
- ☐ POLLEN FILTER - replace
- ☐ DRIVE BELTS - check
- ☐ EXHAUST EMISSION - check with TECH 1: - read-out of stored trouble codes - visual check of exhaust components - check idle speed, ignition timing, idle CO-contents - check function of catalytic converter
- ☐ ENGINE OIL AND FILTER - replace
- ☐ LEAKAGE - visual check of engine and trans
- ☐ LIGHTS AND SIGNALLING DEVICES - check
- ☐ WINDSCREEN WIPE/WASH system - check fluid level and blade condition
- ☐ HEADLIGHT ADJUSTMENT - check
- ☐ BODY/UNDERBODY - check corrosion protection
- ☐ FRONT DISC BRAKES - check pad thickness
- ☐ BRAKE PIPES, BRAKE PRESSURE HOSES AND FUEL LINES - visual check
- ☐ WHEELS - check wheel nut torque, tyre condition and tyre pressure
- ☐ BRAKE PROPORTIONING VALVE - check
- ☐ ROAD TEST

- ☐ BRAKE FLUID - Change every 2 years (regardless of km)

**180,000 km or
12 years
Service
Validation**

Servicing Dealer ....

Brake fluid changed: YES/NO

Date of Service............................

Odometer ....

Signed............................

Additional services performed: ....

....

....

....

180,000 km or 12 years SERVICE COUPON

I authorise performance of the services specified on the rear of this coupon.

I understand I will be charged for the following hours of labour:

- 1.9 hours labour
- add 0.2 hours if brake fluid changed
- add 0.9 hours for single overhead cam engine
- add 1.2 hours for double overhead cam engine

Also, that there will be a charge for all lubricants, filters and parts used as a result of checks and additional services performed as requested.

There will also be a charge for additional services as requested:

....

....

....

Signature ....

Date ....

- ☐ COOLANT · check level, check coolant %
- ☐ POLLEN FILTER - replace
- ☐ DRIVE BELTS - check
- ☐ ENGINE TOOTHED BELT - replace
- ☐ AIR CLEANER paper element - replace
- ☐ SPARK PLUGS - replace
- ☐ FUEL FILTER - replace
- ☐ EXHAUST EMISSION - check with TECH 1: - read-out of stored trouble codes - visual check of exhaust components - check idle speed, ignition timing, idle CO-contents - check function of catalytic converter
- ☐ ENGINE OIL AND FILTER - replace
- ☐ POWER STEERING - check level
- ☐ AUTO TRANS - check fluid level. Read-out of stored trouble codes with TECH 1
- ☐ LEAKAGE - visual check of engine and trans
- ☐ LIGHTS AND SIGNALLING DEVICES - check
- ☐ WINDSCREEN WIPE/WASH system - check fluid level and blade condition
- ☐ CLUTCH PEDAL adjustment - check adjustment
- ☐ DOOR HINGES, DOOR STOP, BONNET LOCK, TAILGATE HINGES - lubricate
- ☐ HEADLIGHT ADJUSTMENT - check
- ☐ BODY/UNDERBODY - check corrosion protection
- ☐ FRONT DISC BRAKES - check pad thickness
- ☐ REAR DRUM BRAKES - check pad thickness
- ☐ BRAKE PIPES, BRAKE PRESSURE HOSES AND FUEL LINES - visual check
- ☐ RUBBER BOOTS - check
- ☐ WHEELS - check wheel nut torque, tyre condition and tyre pressure
- ☐ BRAKE PROPORTIONING VALVE - check
- ☐ ROAD TEST

- ☐ BRAKE FLUID - change every 2 years (regardless of km)

INDEX

Air Bag 6-12
Accidents 6-2
Air conditioning 1-15
Air pressures (tyres) 7-9
Alarm system 2-7
Alternator (battery) warning light 1-6
Anchorage points 3-8
Antifreeze fluid 7-4
Anti-theft system 2-6
Appearance care 11-1
Ash tray 1-11
Audible warning 1-9
Automatic transmission
  Operation 4-4
  Fluid level 7-5
ABS 4-8

Battery
  Fluid level 7-7
  When flat 6-10
Bonnet release 1-19
Boiling 6-8
Boot lid 2-3
Brakes
  ABS 4-8
  Precautions 4-7
  Fluid level 7-6
  Warning light 1-6
  Park brake 3-13
Bulbs (replacement) 7-13

Capacities (fluid) 8-2
Caravan & trailer towing 10-3
Carbon monoxide warning 5-2
Central locking 2-4
Certificate 9-2
Change of name/address page 3
Check engine light 1-6
Child proof door locks 2-2
Child restraints 3-8
Cigarette lighter 1-11
Cleaning of vehicle 11-1
Clock 1-18

Cooling system
  Fluid level 7-4
  Overheating 6-8
  Temperature gauge 1-5
Courtesy light 1-9
Curb weight 10-2
Customer assistance 9-21

Date 1-17
Deadlock 2-5
Dealers (Authorised Holden) 9-12
Demister 1-17
Dimensions 8-3
Dimmer 3-14
Dipping (headlights) 1-9
Dipstick 7-3
Dome light
  Bulb replacement 7-17
  Operation 1-9
Door locks 2-3
Driving precautions 4-7

Electric door locks 2-4
Electric mirrors 3-11
Emergencies 6-1
Emission control system 5-5
Engine
  Cooling system 7-4
  Identification number 8-5
  Overheating 6-7
  Specifications 8-2
  Starting 4-2
  Warning light 1-6

INDEX

Engine oil
  Capacity 8-2
  Checking levels 7-3
  Pressure light 1-7
Exhaust gas warning 5-2

First aid 6-3
Flashers
  Hazard warning 1-10
  Turn signal 1-9
Flat battery 6-10
Flat tyre 6-4
Fluid capacities 8-2
Fluid levels
  Automatic transmission 7-5
  Battery 7-7
  Brake 7-6
  Coolant 7-4
  Oil 7-3
  Power Steering 7-6
  Windscreen washer 7-7
Folding seat 3-4
Fog lights 1-10
Fuel
  Refuelling 5-3
  Gauge 1-5
  Warning light 1-6
Fumes caution 5-2
Fuses 7-8

Gear box 4-6
Generator (battery) warning light . 1-6
Glovebox 1-11
Globe replacement 7-13

Hand brake 3-14
Hazard warning flashers 1-10
Hatchback 2-3
Head restraint 3-3
Heater controls 1-13
Heated rear window 1-16
Headlamps
  Bulb replacement 7-13
  Switch 1-9
Height adjust seat belts 3-7
High beam indicator light 1-6
Holden Dealers 9-12
HoldenWise 9-8
Hood 1-19
Horn 1-3

Identification numbers 8-4
Ignition switch 1-3
Indicators (turn signals) 1-9
Indicator/warning lights 1-6
Infant & child restraints 3-8
Inflation (tyres) 7-9
Instrument panel 1-2
Interior (courtesy) light 1-9

Jack 6-4
Jump starting 6-10

Keys 2-2
Kerb weight 10-2

Labels 8-4
Lights
  Bulb replacement 7-13
  Instrument panel 1-6
  Headlight switch 1-9
  Interior light 1-9

INDEX

Loading information 10-2
Locks
  Bonnet 1-18
  Boot lid 2-3
  Door 2-3
  Fuel filler 5-3
  Glovebox 1-11
  Hatchback 2-3
  Ignition 1-3
Low fuel light 1-6
Lubricants 8-2

Maintenance schedule 12-4
Manuals (service) 7-2
Manual transmission
  Fluid capacity 8-3
  Operation 4-6
Medical assistance 6-2
Mirrors 3-11
Mobile trolley jack locations 7-12
Model identifications 8-5

New vehicle running-in 4-2

Octane rating (petrol) 5-4
Odometer 1-4
Oil
  Capacity 8-2
  Level 7-3
  Low pressure warning 1-7
Outlets, air 1-12
Overheating
  Procedure 6-8
  Temperature warning 1-5
Owner responsibility
  Emission controls 5-5
  Weekly checks 7-2
  Maintenance service 12-2

Paintwork cleaning 11-4
Park brake lever 3-14
Parking 4-3
Petrol 5-3
Plates 8-4
Polishing 11-5
Power locking 2-4
Power mirrors 3-11
Power steering
  Fluid level 7-6
  Precaution 4-8
Push starting 6-10

Radiator -
  See "Cooling system"
Radio 1-11
Rear axle load 10-2
Rear seat adjustment 3-4
Rear window demister 1-16
Rear window wipe/wash 1-8
Rear vision mirrors 3-11
Refuelling 5-3
Restraints 3-8
Roof racks 10-2
Running-in 4-2

Safer Driving precautions 4-7
Safety belts 3-6
Seat
  Rear 3-4
  Front 3-2
Seat belts 3-6
Serial number 8-5
Service 12-2
Service manuals 7-2
Snow Chains 4-7
Spare wheel 6-4

INDEX

Specifications 8-1
Speedometer 1-4
Sportydrive 1-6
Starting
  Flat Battery 6-10
  Normal engine 4-2
Steering power 7-6
Stereo, radio/cassette 1-11
Stop/tail light replacement 7-15
Storage, jack & spare wheel 6-4

Tachometer 1-4
Tank capacity 5-4
Temperature gauge 1-5
Theft deterrent 2-6
Time 1-18
Towing
  Caravan/trailer 10-3
  Disabled vehicle 6-7
Transmission
  Automatic 4-4
  Manual 4-6
Trip meter 1-4
Trolley jack location 7-12
Turn signal
  Bulb replacement 7-14
  Operation 1-9
Tyres
  General 7-10
  Inflation pressure 7-9
  Rotation 7-10

Vehicle Identification Number 8-5
Vehicle loading 10-2
Vehicle weights 10-2
Ventilation system 1-12

Warning lights 1-6
Warranty Certificate 9-2
Washer Fluid 7-7
Washing 11-4
Wheel changing 6-4
Wheel replacement 7-10
Windows
  Manual 3-11
  Electric 3-13
Windscreen
  Wiper/washer control lever 1-8
  Fluid level 7-7
Wiper blades 11-6